

MANUFACTURERS RECORD

A Weekly Newspaper Devoted to the Industrial, Financial, Railroad,
Mining, Contracting, Engineering, Building, and General
Business Interests of the South and Southwest

Vol. 71

No. 17

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Let Us Have "The Allies Day"

America welcomes to its shores the representatives of its Allies in the great world struggle for civilization and human liberty. These representatives, who are among the world's truly great men, have come to consult with the leaders in this country and give to us the benefit of all of the experience which they have bought at a costly price in the mighty struggle of the last three years.

Their coming will cement into the closest relationship all of the civilized nations of the world, for every civilized nation must, whether it takes an active part in the struggle or not, be mentally and morally, if not physically, in bitter hostility to the fearful onslaught against civilization by the nations which have sunk into barbarism.

As the entrance of this country into the European struggle in defense of civilization and democracy and for the protection of our own existence has been hailed with such boundless enthusiasm by our Allies, the Manufacturers Record is suggesting in this issue that a day should be appointed by the President, to be known as "The Allies Day," in which in press and from platforms, in schools and in churches, the story of the wonderful, heroic work of the Allies, as they have given millions of lives and billions of treasure to our safety as well as to their own, should be proclaimed from one end of the land to the other.

BALTIMORE, APRIL 26, 1917

Bethlehem Steel Company

General Office—South Bethlehem, Pennsylvania

Announces the purchase of the property and plants of the AMERICAN IRON AND STEEL MANUFACTURING CO., located at LEBANON AND READING, PA., which with the BOLT AND NUT DEPARTMENT at STEELTON gives a complete range of sizes and variety of bolts and nuts.

We solicit your inquiries and assure prompt attention to your orders, and ask you to communicate with our nearest BRANCH OFFICE.

We are prepared to furnish:

BOLTS

Machine, Carriage, Lag, Plow, Patch and Track.

NUTS

Hot Pressed, Cold Punched, Forged, Finished, Case Hardened and Castle.

RIVETS

Boiler, Bridge, Structural, Ship, Tank and Tap.

SPIKES

Standard R. R., Screw Track, Universal Screw, Boat, Dock and Wharf.

BAR IRON

Refined, Chain, Double Refined, Engine Bolt, Staybolt and Special Staybolt.

HEAT TREATED TRACK

Frog and Fitting-up Bolts in SIMPLE ALLOY and MAYARI Steels.

BRANCH OFFICES:

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Boston.....	Oliver Building	New York.....	Trinity Building
Baltimore.....	Continental Building	Philadelphia.....	Morris Building
Cleveland.....	Guardian Building	Pittsburgh.....	First National Bank Building
Chicago.....	People's Gas Building	St. Louis.....	Boatmen's Bank Building
	San Francisco.....		Crocker Building

WAREHOUSES:

South Bethlehem Lebanon Boston Cleveland

Vol. I

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MANUFACTURERS RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

Trade-Name Registered in the U. S. Patent Office

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THE TRAITORS AND SLACKERS AND COWARDS STILL IN EVIDENCE.

THE pro-Germans and the slackers and the cowards are doing all in their power to defeat President Wilson's plan for a selective draft or conscription system of creating an army. It is to be expected that the traitors who, as pro-Germans, have sought to betray the nation by fighting preparedness as they have done for nearly three years, should now do their utmost to prevent the creation of an army to meet the dangers that may be ahead of us, but that any self-respecting American citizen, much less any man in Congress, purporting to represent the people of this country, should antagonize President Wilson's bill indicates a mental weakness, or else an alliance with pro-German activities or with the slackers and cowards. It looks as though we still have in Congress men who would rejoice if they could uphold Germany, even at the expense of our own country. There are evidences in many directions that the pro-Germans are still vigorously at work, and that they still have representatives in the Congress of the United States, more interested in defending Germany than in saving our own country.

Traitors to the nation and to human liberty still disgrace the nation, and still seek to tie the President's hands and weaken our position, just exactly as they fought for nearly three years to prevent this country from preparing to meet the dangers of this hour.

How much longer will the people of this country put up with those who betray its best interests and who would betray its safety? And how much longer will the self-respecting people of this country regard any such other than with the most supreme contempt as men unworthy to be permitted to speak to any decent American?

THE MANUFACTURERS RECORD is vigorously urging the establishment of shipbuilding plants in the South, with a view to taking part in the great shipbuilding campaign upon which the Government has entered, but it is not in any way whatever co-operating with any one individual or with any particular enterprise.

LET US HAVE AN "OUR ALLIES DAY."

THE entrance of the United States into the war for civilization has been hailed by the Allies with unbounded satisfaction. It has brought France and England, Russia and Italy into closer fellowship with the United States than would have been accomplished in a century of ordinary business intercourse. The stand of this great Republic for human rights and that the world may be safe for democracy has kindled in the hearts of men everywhere a spirit of liberty and an enthusiasm for this country such as the world has probably never seen for any other country. It is as though a nation had been born in a day, and while the despots of Germany and Austria and Turkey quake with trembling because of the rise of democracy, the great nations, who have poured out their blood and their treasure for civilization, stand almost with uncovered head before the American flag.

Let the people of America return the compliment. Let them fly the flags of England, and of France, and of Russia, and of Italy. Let us devote a day to the national recognition of our Allies and their heroic work, which has made possible our salvation and the salvation of all civilization. President Wilson might well call upon the nation to set apart some day when from business houses and public buildings the flags of the Allies should float, and when in great public gatherings the story of heroic work by the Allies on the battlefields of Europe might be told to quicken the enthusiasm of our country and to teach the people of this land that duty comes before pleasure, honor before peace and patriotism before profit.

A mighty influence for good could be exerted throughout this country and throughout all the world if on some day in the near future, whether it be a week day or a Sabbath, the whole country should be called to do honor to the Allies and their work for civilization.

In all the annals of human history nothing has been more heroic than the superb work of England and France as they have fought the mighty battle to stem the flow of barbarism, and in all the records of human governments nothing has been more marvelous than the overturn of Russian autocracy and the coming to the front of the great leaders of democracy in that wonderful land. It is interesting, too, that the man who stands at the head of this movement of Russia for democracy was a professor in an American university, and here learned something of the meaning of civil and religious liberty. It has been stated that the man who was really responsible for the fight running through years in behalf of prohibition in Russia, and who gradually carried his work to the point that he was able to enlist the co-operation of the Czar and his advisors on the breaking out of the war, had gained his knowledge of the power of prohibition in Kansas, the foremost prohibition State of the Union.

America has been like a great university, to which the people from all the nations of the earth have come. Here they have learned as they had never

done elsewhere of civil and religious liberty to the extent that we know it in this country. Here they caught the inspiration of democracy as against autocracy, and they have gone out from this mighty university—a university which the Almighty endowed with matchless resources—and have carried these doctrines to the farthest ends of the world.

It would well become us, therefore, as a nation to set apart a day when in every part of the country the thought of our people shall be turned to the study of the heroic work of the Allies, that we may understand what they have given in life blood and treasure for human liberty. We would thus be stimulated and stirred to join hands with them to the utmost limit of our ability in carrying forward the burden which up to this time has rested upon them.

The MANUFACTURERS RECORD trusts that President Wilson will send forth to the nation a call for an Allies Day, just as England has so magnificently celebrated America Day.

POTASH AS A BY-PRODUCT IN CEMENT.

THE success of the Security Cement & Lime Co. of Hagerstown, Md., in saving potash as a by-product in the manufacture of Portland cement should stimulate other cement industries to follow its example, not only for their own profit, but for the enlargement of the output of potash, now so seriously needed.

The Security company is carrying in one of the fertilizer papers the following advertisement:

AGRICULTURAL POTASH.

We are now producing and have for sale

"SECURITY POTASH TREATER DUST."

a by-product recovered by electrical precipitation from the gases of our cement kilns. Our production is about 600 tons per month, and the material will analyze approximately as follows:

	Per cent.
Potassium sulphate.....	16.7
Potassium Oxide (combined as silicate).....	3.3
Sodium chloride.....	4.0
Calcium carbonate, sulphate and oxide.....	52.0
Silica	15.0
Alumina	6.0
Iron oxide.....	3.0
	100.00
Water soluble potash (K ₂ O) as sulphate.....	9.00
*Slowly soluble potash (K ₂ O) as silicate.....	3.30
Total K ₂ O.....	12.30

*This slowly soluble potash has been found by experience to become quickly soluble and available when mixed with acid phosphate in commercial fertilizer.

This material has been successfully used by some of the largest manufacturers of fertilizer since July, 1916.

SECURITY CEMENT AND LIME COMPANY,

General Offices: HAGERSTOWN, MD.

Baltimore. Philadelphia. Washington.

The success of this company in producing potash is important to the whole country. We cannot afford, as a nation, to depend upon any other country for potash, or for any other raw materials needed for the rounding out of agricultural and industrial life. We must create sources of supply which will make this country independent of all others, and the work of the Security company is an interesting illustration of what can be done when men of broad vision and of capital combine with the ablest scientists in undertaking to solve such problems.

ALL BUSINESS INTERESTS HAMPERED BY INADEQUATE RAILROAD FACILITIES.

FROM every part of the country come reports of the hampering of all business operations by the lack of railroad facilities. An Ohio concern advises us that it has 20,000 carloads of material ready for shipment; that its loading capacity is 300 cars a day, but that it is only able to get two or three cars a day. The vast quantity of material piled up has been sold, and the buyers are eager for it, but the railroads cannot deliver it.

Iron and steel interests are hampered in the same way. A carload of freight shipped from Raleigh, N. C., to Baltimore took exactly two weeks from the time when it was loaded on the car at Raleigh to its delivery in Baltimore. The distance between Raleigh and Baltimore is 409 miles, and this means that this carload of freight traveled at an average rate of only 31½ miles per day. The investment in the shipment, the investment in the car and the investment in the railroad tracks and handling facilities were all tied up for two weeks by reason of the inability to handle freight promptly.

These two cases are but typical of what is seen in every part of the country, and the delays which every business interest of the country has to put up with. These delays are destructive of business and of profits to the shippers and to the railroads. The Ohio concern, with 20,000 carloads of material sold and awaiting shipment, with facilities for loading 300 cars a day while only two or three cars are received, finds itself so hampered that under these conditions business becomes almost an impossibility. This situation exists even at a time when the Government has not had to use the railroads largely for the handling of troops or munitions. What would happen in the mobilization of a large army and the handling of great army supplies it is almost impossible to suggest. The condition would beggar description.

We have so far outgrown our railroad facilities that in the matter of transportation we are as unprepared for business as the country three months ago was unprepared for war. The nation is now proposing to spend billions of dollars hurriedly, hastily, in an eager scramble to accomplish things which should have been done years ago. But the Government's call upon capital enables the Government to provide the money needed for these enormous expenditures to enlarge the navy, to build ships for commerce and to increase the army. The railroads, however, have no such call on capital. The country has regulated them almost unto death. They are in the condition of the horse whose owner constantly decreased his food supply until he thought he had trained him to live on one straw a day; but when he had reached that point the horse died. We have been trying to reduce the financial food supply of the railroads year by year until it has almost reached the vanishing point, and the railroads are well-nigh in the position of the horse with his one straw of food per day. Our business interests have been enormously expanded; we have well-nigh doubled our production of iron and steel during a period in which there has been practically no railroad expansion in mileage whatsoever; or, at least, it has been so small as to be negligible.

During the last ten years there should have been an enormous increase in railroad mileage, in the double-tracking of roads, in enlarged terminal facilities, and in a more adequate supply of rolling-stock, especially of locomotives. But, discouraged by the daily decreasing supply of foodstuff in the shape of business which could be carried at a profit, the railroads have not had the financial strength to do the things which all railroad men have seen should be done. The loss is falling upon the people. The people were responsible for these conditions, for they yielded to the clamor of demagogic politicians and to honest but misguided men; and now the country must inevitably pay the cost; and the cost, through delayed business operations, through the hampering of all business of every kind, through the vast loss on investments in material on the road or delayed for weeks and weeks and sometimes

months in transit, will run, before the situation can be changed, into billions of dollars.

The Administration and those who have been called into the nation's council in this time of war must give heed to the railroad situation and recognize that one of the first duties of the country, almost as great as building a navy, is the duty of developing our internal preparedness situation by developing our railroads. If money cannot be had in any other way, the Government will be compelled to provide capital needed for railroad expansion. In no other way than by great expenditures, running far into the billions, will it be possible to put the railroads of the country in shape for war or for peace. The \$7,000,000,000 of bonds which this country is proposing to float for war purposes and for aiding the Allies is scarcely equal to the amount needed for the adequate development of our railroads. Without development on such broad lines it will be impossible to put the country in a state of preparedness to protect ourselves against the possibility of war on our own shores, or to properly handle the materials needed for the expansion of our navy and the increase in the building of ships for commercial purposes, and to care for the steady expansion of traffic.

The railroad situation in the past has been bad enough, but increasing cost of fuel, of rails, of rolling-stock, of labor and of every other item which enters into transportation, has brought about an impossible condition under which the railroads cannot live unless they are allowed to make much heavier earnings. The railroad situation needs radical action, and needs it at once, for every day's delay means a gradual but heavy lessening of the financial food which alone can save the railroad system of the country from going the way of the horse which had been trained to live on one straw a day. We believe that the American people will be too wise to permit a continuation of this condition; but that, on the other hand, they will co-operate, and that right promptly, in giving to the railroads a larger income, and thus assure a railroad expansion which for years to come would tax the producing capacities of our iron and steel works long after the war has ceased.

ONE VIEW OF THE MEXICAN SITUATION.

FROM a well-posted correspondent, familiar with the Mexican situation, the MANUFACTURERS RECORD is in receipt of a personal letter, in the course of which the following interesting statements are made:

I wish to point out one thing that may not have been made clear regarding the Mexican situation. The *Demócrata Fronterizo* of Laredo, Tex., usually an exceedingly well-informed paper, says that Carranza is taking in large sums in gold from German sources for the granting of leaseholds to German agents upon large areas of the Tampico oil fields. By the new Constitution which Carranza drew up and had ratified by his subservient Constituent Assembly, the status of the oil lands of the republic was changed. Oil had belonged to the owner of the surface rights in lands held under title. The new Constitution puts them on the same basis as mines. Accordingly, they are subject to "denouncement" in the same manner as mining rights and are acquired as leaseholds only. They become subject to the mining law and to the bureaucratic administration of the Department of Fomento. I have not yet ascertained whether this is made retroactive or not. If declared a regulation of public utility, it could be made retroactive under a sort of blanket appropriation for the national welfare. The act has been termed in the Mexican press a "nacionalización," which would imply that it can be made to operate so as to require denouncement and application for the leasehold titles, which would place all oil land under the same category and controlled by the same statute. Unless the holders of oil lands look to it carefully, they will find that in any event defects in the titles to surface rights on lands, from the owners of which the oil men having their rights, may be taken advantage of by those having official advice so that denouncements may be made that would bear technical scrutiny in the courts. In this way German rights might be established which would have the color of technical validity and serve as a convenient *casus belli* if it be the intent of the First Chief to embroil us for the advantage of Germany. It is significant that Carranza the other day paid his troops in gold, distributing in this way over \$1,000,000. Where did he get it?

THE OPPORTUNITY OF FOREIGN TRADE THROUGH SOUTHERN PORTS.

FOREIGN exports for March from the Savannah district, which includes Brunswick and Darien, indicate the rapid development of the export trade from these ports. The total value of these exports amounted to \$9,399,000. The largest part of the increase as reported by the Savannah News was from Brunswick, from which point the exports for March amounted to \$3,801,000, or a gain of considerably over \$1,000,000 over February.

A detailed list of the value of these exports is interesting as showing how various lines of foreign trade are now being developed through Southern ports. With the co-operation of railroads leading from the West to Southern ports in the way of freight rates, in the vigorous way which has always been displayed by railroads leading from the East to Boston, New York, Philadelphia and Baltimore in developing foreign trade, there should be brought about a very great expansion in the exports from Southern ports.

The congestion on Northern roads and in Northern harbors is a strong argument in favor of Southern roads and Southern ports uniting in a vigorous campaign to utilize this situation and increase the foreign trade through all Southern ports.

A detailed list of the value of exports from Savannah shows the wide variety of stuff that is being sent out, including heavy exports of provisions from the West, the exports of cottonseed-oil cake, which stand high on the list, and also of iron and steel products. It was as follows:

EXPORTS.	
Hay rakes.....	\$6,865
Mowers.....	16,848
Other agricultural implements.....	9,507
Carbon black.....	3,600
Brass articles.....	1,793
Automobiles.....	830
Other vehicles.....	248
Tanning extracts.....	14,206
Chemicals.....	19,477
Anthracite coal (200 tons).....	1,160
Sea-island cotton (24 bales, 9703 pounds).....	8,500
Upland cotton (26,353 bales, 13,381,525 pounds).....	2,978,761
Cotton linters (2554 bales, 1,470,986 pounds).....	129,684
Cotton waste (723,092 pounds).....	24,164
Electrical machinery.....	1,503
Canned salmon (156,000 pounds).....	37,052
Canned shrimp.....	6,628
Pig-iron (5337 tons).....	86,367
Scrap iron (29 tons).....	712
Wire rods of steel (2,247,700 pounds).....	64,400
Other bars and rods of steel (569,000 pounds).....	21,280
Billets, ingots and blooms of steel (6448 tons).....	458,078
Gasoline traction engines (195).....	135,332
Parts of engines.....	3,372
Pumps and machinery.....	31,675
Cast-iron pipes and fittings (7,953,894 pounds).....	126,574
Steel plates (765,641 pounds).....	37,470
Other manufactures of iron and steel.....	278,597
Lead pigs (domestic ore, 252,000 pounds).....	30,624
Canned beef (922,229 pounds).....	340,657
Pickled beef (326,652 pounds).....	56,248
Oleo oil (238,487 pounds).....	48,972
Bacon (3,880,255 pounds).....	862,284
Cured hams and shoulders (703,552 pounds).....	136,502
Lard (9,774,617 pounds).....	1,848,244
Neutral lard (890,909 pounds).....	171,913
Canned pork (139,638 pounds).....	45,679
Pickled pork (470,604 pounds).....	83,842
Lard compound (93,794 pounds).....	14,280
Canned sausage (74,821 pounds).....	35,400
Canned meat products.....	2,254
Rosin (32,098 barrels).....	236,008
Spirits of turpentine (139,663 gallons).....	73,660
Tar and pitch (2417 barrels).....	16,087
Cottonseed-oil cake (28,981,650 pounds).....	516,735
Lard oil (10,400 gallons).....	13,184
Lubricating oil (1919 gallons).....	578
Ready mixed paints (110 gallons).....	178
Syrup (27,463 gallons).....	10,327
Canned vegetables.....	84,286
Saved pitch pine timber (820,000 feet).....	28,279
Yellow pine boards (674,000 feet).....	10,931
Short-leaf pine boards (2,021,000 feet).....	33,493
Other boards (520,000 feet).....	53,124
Railroad ties (25,580).....	24,297
Staves (37,419).....	10,183
Other manufactures of wood.....	57,817
Woolen rags.....	18,127
Zinc spelter (domestic ore, 56,000 pounds).....	5,592
Zinc spelter (foreign ore, 112,000 pounds).....	11,500
Coal tar (358 barrels).....	581
Stationary gas engines (943).....	20,580
All other articles.....	12,253
Total.....	\$9,399,654

REGISTER ALL BUYERS OF FIREARMS.

MIGHT it not be a wise move on the part of all municipalities in the country at the present time to require dealers in firearms to register the name of every buyer of guns and pistols and ammunition of every kind, and to report this daily to the local authorities? The suggestion may seem far-fetched to some, but we believe that it could be wisely followed.

STEEL PRODUCTION AS WELL AS FOOD PRODUCTION MUST BE INCREASED.

(COPY OF TELEGRAM.)

Baltimore, Md., April 24, 1917.

Hon. E. H. Gary,
Chairman United States Steel Corporation,
New York, N. Y.:

Referring to my telegram of April 16. A copy of it was sent to President Wilson, and from him I had a reply in which he said:

"Let me thank you for your letter of April 16. I have read it with much interest."

The length of the war upon which we have entered is beyond the power of any man to forecast. We know not what complication may arise. Though we may indulge the hope that the war cannot last for a long time, you will remember that two years ago you felt, as many others did, that it was impossible for Europe to continue so fearful a struggle for any great length of time. Forces are at work beyond our power to comprehend, and however much we may hope for an early termination, the nation must of necessity in every line of preparedness, whether it be in the creation of an army and a navy or in the production of foodstuffs and manufactured products, look forward to the possibility of years of struggle and be ready to meet the situation. We may find that we have been vainly deluded by the reports of riots in Germany put out for the express purpose of keeping us from making adequate preparations, and if we fail to make full preparation by failure to create a great army and navy, and failure to provide for enlarged steel productions as well as food production, we shall have no one but ourselves to blame for the fearful cost in men and money by reason of our shortsightedness.

Before this war ends we may need a vast increase in our steel production, and we may find it absolutely essential for this to be less concentrated in one particular section of the country than at present; and even when the war is over a large part of the world must be reconstructed and there will then be an enormous demand for iron and steel for railroad and other commercial expansion to take the place of the present world demand for munitions.

The enlargement of our shipbuilding interests is supremely important to help save the Allies from starvation and to provide ships for munitions, and also for commerce after the war. With the advantages of the South Atlantic and Gulf coasts, great shipbuilding centers could be developed if capitalists were assured of an adequate supply of steel shipbuilding materials produced in Alabama or in other nearby iron and steel-making regions of the South.

I would, therefore, again take the liberty, by reason of President Wilson's letter, to ask that you and your associates at today's meeting give the most earnest consideration to the suggestion of a great enlargement of your Alabama interests. Your favorable action would quicken the whole South and do the nation and civilization a great service.

RICHARD H. EDMONDS,
Editor Manufacturers Record.

AND YET GERMANY IS UNLOVED.

ONE of the correspondents who has been in Germany since the early days of the war cables that today the best brains of the Fatherland are intently studying the problem of Germany's world-wide unpopularity, seeking the solution which is seen to be a prerequisite to peace.

This certainly is a problem, almost as much of a problem as that which puzzled the youth who, when a girl did not seem responsive to his attentions, poisoned her father, broke up the furniture, set fire to the house, threw her downstairs, kicked her pet cat, and then, with tears in his eyes, asked her, "Clarice, why, oh! why don't you love me?"—Financial America.

Financial America does not state the full case. The young man not only poisoned the father, but he murdered the mother, outraged the sister, tortured the young brother to a horrible death, burned the house, and still wondered why he was not loved.

SUGGESTIONS OF SECRETARY LANE ABOUT MINERAL AND NITRATE PRODUCTION TOO OPTIMISTIC AND CALCULATED TO DO HARM.

SECRETARY LANE of the Department of the Interior has issued a statement in regard to mineral interests in the United States in relation to the war situation, some points of which call for questioning or criticism.

Referring to the importation of pyrites ores for the manufacture of sulphuric acid, the importations of which from Spain are now being cut off, he says: "In time of need we could secure sufficient from our own beds." If there are ample beds of pyrites available in this country, will Secretary Lane please advise us as to why they have not been heretofore developed? Is it because an unwise fiscal policy has made it difficult to develop these pyrite beds in competition with the cheaply-mined ores of Spain? If that is the cause, have we not now a striking illustration of the folly of such a fiscal policy when we are face to face with a sulphuric acid famine by reason of a war which has cut out the Spanish supply? But for the fortunate development of two great sulphur deposits in the South this country would face a serious disaster.

Moreover, will Secretary Lane advise us as to the time which would be required for the opening up of new pyrite mines to meet an immediate, pressing necessity? If the ore deposits are to be found, how many years will we have to wait before they can be developed to take the place of the Spanish ores? And, if capital goes into their development to meet this situation, will it be protected at the close of the war, or will it be wiped out by the importation of Spanish ores on a tariff basis which would leave no protection to American ores?

Referring to the nitrates which are essential for explosives and fertilizers, Secretary Lane mentions the appropriation made by Congress of \$20,000,000 for the construction of a plant for the production of nitrates from the atmosphere, and on this he says:

"The location and character of this plant is now being determined, so that in a comparatively short time we shall be equipped in this respect for the enemy in time of war and for added agricultural production in time of peace."

In this statement Secretary Lane, referring to nitrate and the proposed Government plant, says "in a comparatively short time we shall be equipped to meet the enemy in time of war and for agricultural production in time of peace." In these days wars do not wait for a nation to get ready, and we presume that at the best it would take from twelve months to two years to build such a plant and to put it into operation. What are we going to do during that one or two years for nitrates for fertilizers and for explosives should the supply of Chilean nitrates be cut off, as is quite possible? It is probable that the Government has protected itself to some extent in buying up nitrates for explosives, but are not the fertilizer interests of the country left high and dry even now in a decreased supply of nitrates and with an uncertainty as to further supplies? How long shall we have to wait before the Government nitrate plant is in operation? If there is one thing which should be pressed with all the possible vigor which can be thrown into construction work, it is the nitrate plant, or, possibly, plants. In the meantime, we should import every ton of nitrates for which ships can be found.

Secretary Lane underscores the statement that if our supply of manganese should be cut off and our reserve supply be exhausted, "there is no question about our being able to find a substitute." Have we any absolute assurance that a substitute could be found? If so, is it not about time to be finding it? A war period, when the active struggle is on, is rather late for experiments, whether it be for drilling and equipping an army or whether it be for the rounding out and co-ordinating of industrial and railroad activities to make possible the production at home of all of the materials needed in time of war and in time of peace.

Let us imagine for a moment that the submarine boats shall do for nitrates and for sugar and for

manganese what they have already done for pyrites from Spain, namely, shut off the supply. This is not more impossible than six months ago would have been deemed the situation in regard to the power of submarines in endangering the ability of England to import foodstuffs and munitions. Will it not be rather late in the day, then, to begin the enlargement of our sugar-growing interests, which were almost killed by a foolish tariff policy; the development of our pyrites, which would have been developed to a larger extent years ago but for unwise tariff legislation, and the development of other materials essential to business and national life? A nation, especially one with such marvelous resources as this country, which, through failure to develop them, is dependent upon other countries for the things which it could have produced at home under a wise economic policy, puts itself in a position of imminent danger such as that which we are now facing in many directions.

The MANUFACTURERS RECORD is not making these criticisms with any thought whatsoever of hampering Secretary Lane's department, but we are calling attention to these facts because it is necessary that the country should not be lulled into a false sense of security. To suggest that we can meet the present situation by quick development of pyrites mines, and that in a "comparatively short time" we shall be producing nitrates from the atmosphere is calculated to seriously mislead the people of the country—unintentionally, of course, but it is too much like that spirit of braggadocio which has been an unfortunate phase of our national life, often expressed in the statement that the "United States could lick creation."

It is a spirit which should not find expression from any Governmental department in relation to our ability to meet the crises we are facing. It is in keeping with some statements issued a few months ago by the Department of Agriculture, which were thoroughly calculated at that time to mislead the country as to our production of foodstuffs. As a nation we must ask to have the power given us "to see ourselves as others see us," otherwise we shall pay in fearful losses the penalty of our mistakes, just as England has been doing.

SORGHUM SEED FLOUR MAY OPEN A NEW SOURCE OF FOOD.

SORGHUM cane seed has been ground into flour and the flour made into biscuit at Rock Hill, S. C., the bread looking and tasting very much like Graham bread. Mr. T. L. Johnston, president of the People's National Bank of Rock Hill, tells the MANUFACTURERS RECORD that sorghum cane can be produced at about one-fourth the cost of growing corn, and that the yield of seed per acre is three or four times as much as the average yield of corn per acre. Sorghum cane grows rapidly, and can be planted as late as early summer.

If a further investigation demonstrates that the seed can be advantageously used for bread-making, an important industry will have been created in the South, for sorghum can be grown almost everywhere in that section. The seed can be threshed in the ordinary wheat thresher and ground with the same machinery now used for flour, thus no change is needed in machinery for threshing or for grinding, and the bread is reported as being very palatable. It has not yet been chemically tested as to the amount of nutrient contained, but the information given by Mr. Johnston would suggest the desirability of immediate investigation by agricultural colleges and the National Government.

INTENSIVE CULTIVATION.

"NOT how much land can I cultivate, but how much can I get out of the land I cultivate," should be the motto of the South in all of its agricultural activities. Intensive cultivation should this year be given, as never before, on every farm, large and small, and on every garden plot in the South.

THE SOUTH'S MATERIAL CONTRIBUTIONS TO THE NATION'S LIFE.

IN the agitation for increased production of foodstuffs in the South and President Wilson's reference to the price of cotton being high, there is some danger of the cotton-growing situation of this section being misunderstood.

The price of cotton is not high as compared with the cost of production and the cost of other things. Relatively, it is not as high as wheat, or corn, or pig-iron, or steel, or copper. While 20 cents a pound may look high to those who have not considered the advance in the price of other things, it should be borne in mind that the cost of labor, fertilizers, and of everything else which enters into the production of cotton, has so greatly advanced as to make the present price of cotton really much less than it ought to be, compared with the cost of production and the cost of other things. Moreover, labor and fertilizers and other things will continue to advance to a point which will make 20 cents too small a price for cotton.

The effort seen in many directions to create the impression that cotton is unduly high is wholly unwise and based on a lack of knowledge of the situation. While the South should produce its foodstuffs and become independent of other sections for its grain and its meats, it would be a mistake for this section to concentrate all of its agricultural energies upon foodstuffs to the exclusion of cotton, and this, of course, is not likely to happen. A crop of fair size is essential to the best interests of this country and of its Allies. The South can feed itself, as it should do, and still raise a fair crop of cotton. If its people will throw their whole soul into the situation, and this we believe they will do; otherwise this section would deserve to suffer as it might have to suffer if it failed in such an emergency.

With inadequate supplies of fertilizers and a scarcity of labor, added to the boll-weevil trouble, weather conditions will have to be exceptionally favorable to enable the South to produce a large crop of cotton. Moreover, if the South is to retain at home its negro labor as against the heavy movement of negroes to the North and West, it must secure for its cotton a price which will enable its farmers to pay wages somewhat in keeping with the wages that are being paid elsewhere.

In this issue Assistant Secretary of Agriculture Carl Vrooman makes a very clear statement of the case, far more impressive than the rather garbled reports sent out about some of his speeches made during his tour of the South.

In producing the cotton crop, without which there would be a collapse of all the industrial and financial activities of this country and of the Allies, the South is rendering a service of inestimable value to the nation and to the world. In this respect it is doing fully as much for the country as is the West in its grain production.

This whole section should, however, show a more intensive cultivation of the land in grain, and it should give larger attention to the raising of livestock. Every back yard in the villages and towns of the South should be utilized for vegetables, and every factory employe, wherever it is feasible, should grow vegetables for his family needs. Every tenant farmer should be encouraged, if not compelled, by the land owner to raise chickens and pigs and vegetables for home supplies.

In the discussion which is going on, the country seems to have lost sight of the real contribution which the South is making to national safety and national prosperity.

It is the South which produces the cotton for this country and for the Allies—the cotton which is essential in the manufacture of explosives, on the tented battlefield and in the home.

It is the South which is producing 98 per cent. of the sulphur of the United States, and without which the sulphuric-acid industry, under existing conditions, and the manufacture of explosives, would utterly fail us during the continuance of the war.

It is the South which is giving to the country all of its naval stores; more than one-half of its lumber output; a very large proportion of its coal produc-

tion, and practically all of the coal that is shipped abroad.

It is the South which is furnishing the coal for the navy, as well as for ships of commerce.

It is the South which is producing over one-half of the petroleum output of the United States.

It is the South which is producing the entire bauxite output, the foundation of the aluminum industry of the country.

It is the South which is producing almost the entire output of pyrites in the United States outside of California.

It is the South which is furnishing practically all of the manganese mined in this country, and all of the phosphate rock.

These are but a few things of the many for which the nation of necessity looks to the South. If the supply of these raw materials produced by the South were cut off, the rest of the country would find itself absolutely incapable of maintaining its industrial interests, or of making war, for there are no other regions of the country producing the materials which enter into war-making comparable with what the South is doing in that respect.

THE CONSERVATION OF FOOD SUPPLIES IN SOUTHERN COMMUNITIES BY ADEQUATE MARKETING FACILITIES.

Editor Manufacturers Record:

In the period covered by the next 60 days in the coastal region of the Southern States and four months in elevated latitudes there will be produced an enormous amount of foodstuffs, probably 80 per cent. of which will go to waste! Why? Because of a "missing link" somewhere. There is a need of a market or a mobilization or distributing center for the surplus vegetables which will rot in our "back-yard gardens" during the next four months. While potatoes will be quoted on the market at, say, \$9 the barrel, ten barrels will rot in my back yard because I cannot sell them or even give them away! The same will apply to beans, peas, okra, tomatoes and other vegetables that could be canned. It seems to me that such an anomalous condition should not exist. Could not the Department of Agriculture handle this waste through, say, the county demonstration agents?

The South sticks to cotton because every little fourth-class postoffice town has competitive cotton buyers. But if I raise 1000 bushels of corn and need 300 to supply my wants, the 700 surplus bushels will rot in the barn. But here is a strange fact: A farmer who lives within five miles of me will drive ten miles to town and pay \$1.30 for a bushel of corn imported by the local grain dealer from Peoria, Ill.

I doubt much if we need to put the inmates of insane asylums, convicts, etc., on the farms, or whether we need to convert city flower gardens into vegetable gardens. It seems to me that if the Southern farmer could be assured of a market where he could dispose of his surplus crop at even cost, he would raise enough food supplies in the next four months to feed America at least for a year.

For twenty-two years as cashier of a small country bank I have observed and endeavored in vain to eliminate this condition. Certainly our Government is big enough to solve the problem, which I understand exists in practically all of the Southern States. I could not even give away vegetables raised in my back yard last spring, and I judge the same condition will obtain this season. These conditions appear not to be local, but general. The Secretary of Agriculture states that some \$700,000,000 of waste goes through our kitchens. Possibly another \$700,000,000 is allowed to rot in our fields because we have no "mobilization" centers in the South.

I offer this subject for your consideration as my "bit" in the effort to do something towards "standing by the President."

ELIAS DOAR,

Cashier Bank of Dorchester,
Summerville, S. C.

Mr. Doar clearly states the situation known to all intelligent people throughout the South, and, indeed, for that matter, in many other parts of the country. The difficulty of bringing the consumer of food supplies and the small producer together, especially in the country districts, is one of the problems of the South pressing for solution.

A vast amount of foodstuffs is wasted. Fruits are permitted to rot on the ground because there is no nearby market which will justify their gathering and handling. Vegetables are allowed to go to waste in large quantities because of the inability to market the surplus above family needs. This condition has discouraged many thousands of farmers from at-

tempting to grow more foodstuffs than needed for their own family consumption.

A plan must be devised in every small village and town in the South through which this surplus stuff can be marketed. It may possibly become necessary, as Mr. Doar suggests, for the Government to undertake to do this in the present emergency, but the Government is already overtaxed, and in some cases cumbersome. Hence local people should co-operate and assist in establishing a local market for the surplus garden vegetables and fruits. In every village and town in the South the bankers and other business men should get together immediately and endeavor to work out some plan by which all of the surplus food will be brought to some central point and from there sold or distributed to the best advantage possible. Some things will bear shipment, others will not. Some things can be utilized for canning purposes, others cannot.

Whatever system is devised should include a plan for making known, through the local papers, through notices posted in banks, stores and post-offices, of fruits and vegetables for sale and the wants of those who are seeking to buy such things. There must be a local clearing-house or market place where all of these wants can be made known, and some system devised to save the surplus. Here is a work in which the women of the South can engage to great national profit, but they have the right to call upon the bankers and business men generally to take the lead and co-operate to the fullest extent.

While this should be done by local people, without for a moment waiting on the Government, it would be well for the Government to be studying the situation in order to co-operate with local people in saving every pound of foodstuffs that can be produced.

Mr. Doar has stated the case clearly. The need is pressing. Immediate attention should be given to it.

WE MAY HAVE TO TURN TO CHINA AND JAPAN FOR LABORERS.

THE labor situation throughout this country and the movement of the negroes from the farms to industrial plants in the North and the West, the increasing cost of labor for foodstuff and cotton production necessitate some radical action to meet this condition.

We believe that the best solution of it will be found in taking off the restrictions upon the immigration of Chinese and Japanese labor to an extent sufficient at least to bring in enough laborers to help to solve this acute problem. We do not believe that this country would be endangered by the incoming of a few millions of Chinese and Japanese, and their coming would at the same time greatly lessen the acute labor situation.

A suggestion of this kind will, of course, be antagonized by organized labor, which is constantly fighting for an increase in wages and a decrease in the hours of work; but some way of meeting the problem must be found without regard to the arbitrary demands of labor agitators.

There are many reasons connected with the opening of our ports for the incoming to some extent of Chinese and Japanese laborers that would seem to make the movement beneficial to the whole country, even on broader lines than that of material work.

In offering this suggestion the MANUFACTURERS RECORD recognizes that it will be bitterly assailed by labor unions and by politicians dominated by labor unions, but the idea is one which is worth careful study by the people of the country.

B. F. GOODRICH COMPANY of Akron, Ohio, which was reported in a letter to the MANUFACTURERS RECORD as being interested in an effort to raise long staple sea-island cotton in Arizona in order to meet the demand for cotton for use in rubber tires, advises the MANUFACTURERS RECORD that that company is not interested in the enterprise.

A MEMORIAL FOR NATIONAL PROHIBITION.

PROBABLY the most remarkable memorial ever presented to Congress, considering the statements made and the character of the men who have signed it, is the following:

A MEMORIAL FOR NATIONAL PROHIBITION.

In view of the scientifically proved unfavorable effects of the use of alcoholic beverages even in small quantities;

And in view, therefore, of the colossal, physical, mental, moral, economic, social and racial evils which the manufacture and sale of alcoholic liquor entail;

And in view of the inadequateness of all methods hitherto employed to check or regulate these evils;

And in view of the great and rapid growth of public knowledge and sentiment on this subject as shown by anti-alcohol agitation and legislation through most of our national area,

The undersigned believe the time has come for the Federal Government to take steps looking to the prohibition in the United States of the manufacture, sale, import, export and transport of alcoholic liquors, with the understood exceptions for medical, sacramental and industrial purposes.

There are a thousand signatures to this memorial, including many of the foremost business men, physicians and scientists in America. Everyone interested in this subject should secure from Ex-Gov. E. N. Foss of Boston a copy of the printed list. We can only make room for a few, indicative of the character of the whole list, as follows:

Dr. James Brown Scott, Secretary of the Carnegie Endowment for International Peace; Editor-in-Chief of the American Journal of International Law; Special Adviser to the Department of State; Expert in International Law for the United States at the Second Peace Conference at The Hague, etc.

Judge Elbert H. Gary, Chairman of the United States Steel Corporation.

John Burroughs, Naturalist and Author.

Darwin P. Kingsley, President of the New York Life Insurance Co.

F. A. Vanderbilt, President of the National City Bank, New York; Trustee of the Carnegie Foundation.

Dr. Thomas Nixon Carver, Professor of Economics, Harvard University; President of the American Economic Association.

Dr. Roswell C. McCrea, Professor of Economics and Dean of the Wharton School of Finance and Commerce, University of Pennsylvania.

Frederick Frelinghuysen, President of the Mutual Benefit Life Insurance Co., Newark, N. J.

Dr. F. W. Taussig, Professor of Economics, Harvard University; Member of the Federal Tariff Commission.

David R. Forgan, President of the National City Bank, Chicago, Ill.

Prof. Charles Thaddeus Terry, Professor of Law, Columbia University; Chairman of the New York State Board of Directors on Uniform Laws; Chairman of the Directors of the New York Civic League.

Orville Wright, Aeronaut and Inventor, Dayton, O.

Dr. Henry S. Drinker, President of Lehigh University, South Bethlehem, Pa.; President of the American Forestry Association; Vice-President of the National Conservation Congress.

Dr. Frank A. Fetter, Professor of Political Economy, Princeton University.

Ralph N. Harbison, Harbison-Walker Refractories Co., Pittsburgh, Pa.

James Hartness, President of the Jones & Lamson Machine Co., Springfield, Vt.

Dr. W. J. Mayo, Surgeon, Rochester, Minn.; Founder of the Mayo Foundation for Medical Research; Ex-President of the American Surgical Association.

Warren S. Stone, Grand Chief of the Brotherhood of Locomotive Engineers; Member of the Industrial Peace Commission.

Dr. Theodore C. Janeway, Physician-in-Chief of the Johns Hopkins Hospital, Baltimore; Professor of Medicine, Johns Hopkins University; Co-Editor of the Archives of Internal Medicine; Secretary of the Russell Sage Institute of Pathology; Member of the Board of Scientific Directors of the Rockefeller Institute for Medical Research.

W. J. Harahan, President of the Seaboard Air Line Railway Co., Norfolk, Va.

Howard Elliott, President of the New York, New Haven Hartford Railroad.

A. R. Erskine, President of the Studebaker Corporation, South Bend, Ind.

H. T. Herr, Vice-President and General Manager of the Westinghouse Machine Co., East Pittsburgh, Pa.

H. A. Carhart, President of the Smith Premier Type-writer Co., Syracuse, N. Y.

Eben B. Clarke, Vice-President of the Firth-Sterling Steel Co., McKeesport, Pa.

P. M. Lincoln, Professor of Electrical Engineering, Uni-

versity of Pittsburgh; Past President of the American Institute of Electrical Engineers.

A. B. Farquhar, President of the A. B. Farquhar Company, Limited, York, Pa. Steel Manufacturers.

James Long, President of the American Iron & Steel Manufacturing Co., Lebanon, Pa.

J. J. Egan, President of the American Cast Iron Pipe Co., Birmingham, Ala.

Samuel McRoberts, Vice-President of the National City Bank, New York.

John Wamaker, former Postmaster-General, Merchant. Clarence H. Kelsey, President of the Title Guarantee & Trust Co., New York.

E. B. Thornton, President of the Bedford Steam Stone Works, Bedford, Ind.

John S. Pillsbury, President of the Pillsbury Flour Mills, Minneapolis, Minn.

L. M. Bowers, President of the Cleveland Steel Co.; Member of the Executive Board of the American Shipbuilding Co., of the Great Lakes Towing Co., etc.

Henry D. Walbridge, President of the Pennsylvania Electric Co., the Pennsylvania Public Service Co., the Northern Central Gas Co., the Johnston Fuel Supply Co., the Citizens' Light, Heat & Power Co., etc.

Dr. John M. T. Finney, Professor in Clinical Surgery, Johns Hopkins University.

Capt. Robert Dollar, President of the Dollar Steamship Lines, San Francisco.

Roger W. Babson, President of Babson's Statistical Organization; Lecturer in Statistics, Massachusetts Institute of Technology.

R. M. Catlin, Mining Engineer; General Manager New Jersey Zinc Co., Franklin, N. J.; Former General Manager under John Hays Hammond of eight deep level mines, Johannesburg; ex-President of the Mine Managers' Association of the Witwaters Rand.

Dr. Edwin B. Frost, Professor of Astrophysics, University of Chicago; Director of the Yerkes Observatory, Williams Bay, Wisconsin; Editor of the Astrophysical Journal.

Dr. Ludwig Hektoen, Director of Memorial Institute for Infectious Diseases, Chicago; Head of the Department of Pathology, University of Chicago.

Francis Carter Wood, M.D., Director of Cancer Research, Columbia University; Pathologist of St. Luke's Hospital, New York.

Julian Kennedy, Pittsburgh. Mechanical Engineer and Inventor. Formerly General Superintendent for Carnegie, Phipps & Co.

James G. White, Engineer. President of J. G. White & Co., Inc.; President of the Engineers' Securities Corporation; President of the Cardenas-American Sugar Co.; President of the Investors' Securities Corporation, etc.

George W. Stevens, President of the Chesapeake & Ohio Railroad, Richmond, Va.

Albert L. Scott of Lockwood, Green & Co., Mill Engineers, Boston, Mass.

Mortimer E. Cooley, Eng.D., LL.D., Professor of Mechanical Engineering and Dean of the College of Engineering and Architecture, University of Michigan.

Eugene Levering, President of the National Bank of Commerce, Baltimore.

Dr. Howard A. Kelly, Professor of Gynecological Surgery, Johns Hopkins University.

John Crosby, the Washburn-Crosby Flour Mills, Minneapolis, Minn.

Charles L. Huston, Vice-President of the Lukens Iron & Steel Co., Coatesville, Pa.

Charles H. Ingersoll, Robt. H. Ingersoll & Co., Watch Manufacturers; President of the American Fair Trade League; Member of Fels Fund Commission.

James Bowron, President of the Gulf States Steel Co., Birmingham, Ala.

Ex-Governor E. N. Foss, President of the B. F. Sturtevant Company, Boston.

John V. Farwell, John V. Farwell Company, Chicago.

George A. Farrell, Vice-President and General Manager of the Johnston Harvester Co., Batavia, N. Y.

C. Edwin Michael, President of the Virginia Bridge & Iron Co., Roanoke, Va.

A CASE WHERE "SANITY" IS NEEDED.

PROBABLY most of us have occasionally had a suspicion of the truth of this second statement—so far as our neighbors are concerned. It makes us feel lonely sometimes to think how few there are of us who are absolutely sane and well-balanced in every respect. * * * The newspapers, with more regard to the office ledger than to the Bible, will play the war-scare game to its limit.—Philosopher's Easy Chair in Watchman Examiner.

Most readers of the Watchman Examiner who read the unjust attack upon the daily papers, wholly without foundation, will feel that the "Philosopher" is not among those who are either "sane" or "well balanced." The charge that the daily newspapers "play the war-scare game" to help their profit account is a slander unjust to the extreme. The Watchman Examiner's editor needs to get his "Philosopher" into a more "sane" state of mind.

"BUSINESS AS USUAL."

A FEW American newspapers have undertaken to criticize the suggestion expressed in the slogan of England after the war, "Business as Usual." In doing so they display great narrowness of vision and inability to understand the meaning in the lining up of the people of England in the adoption of this slogan and the reason why American people should follow it. The real leaders in England's business life knew that this slogan was for the purpose of awakening the country to the necessity of going forward with its business activity. They realized that if the welfare of the people was to be maintained at a point which would enable England to carry the great burden of the war, England must carry on its business operations at home and abroad. The old and the young who might not be available for the firing line and the women who could take the places of those on the firing line were called to the factories, to the offices, to the counting-rooms and into other activities to take up and carry forward the business life of England in order that it might do "business as usual."

This did not in the slightest lessen England's ability to develop a great war machine, but it made possible the continuation of business upon which the creation of such a machine was absolutely dependent. It meant the employment of the people, and thus their ability to maintain themselves and the Government, and in this way give to the country the financial strength to stand the burden of this great war.

"Business as usual" viewed from this standpoint means that, while millions may be called to arms, the millions left behind must work with greater intensity; indeed, they must in many cases redouble their energies to produce the foodstuffs and the cotton and other crops, and at the same time must go forward with industrial activities in order that the whole energy and force of the country may be thrown into the maintenance of business.

"Business as usual" means that the railroads must be expanded, in order to meet the increased pressure for transportation facilities. It means that iron and steel works must be pushed as never before; that ore and coal mines must be developed; that shipyards must be established and every available worker be turned into producing ships. Indeed, it means exactly what President Wilson said in his proclamation when he called the nation to work, and that is the vitalizing of every ounce of strength and energy in the country to carry forward every line of business, that with "business as usual" the people may be employed, construction activities may be carried forward, and strength given to the nation to meet the tremendous cost in money and the drain on the nation's man power demanded by the war.

Occasionally people who never think, but only imagine that they are thinking, jump at some conclusion and immediately give voice to it. It was on this account that some people criticized the English business men who had adopted as their slogan "Business as Usual," and doubtless there are some people in this country whose capacity for thinking is not sufficiently broad to enable them to understand the real meaning of England's slogan for business.

SHIPYARD OPPORTUNITIES.

GEORGE E. WOLFF, Assistant Secretary of the City of Fernandina, calls attention to the unusual inducements offered at that port for the establishment of shipbuilding plants, and among these advantages names the following:

Thirty feet depth of water.

Abundant supply of hardwood, such as live oak, white oak, yellow pine, cedar and others locally available.

Skilled and common labor readily obtainable.

Railway connections for quick delivery of any other material needed in construction.

With such advantages as these it would seem that the people of Fernandina ought to get together promptly and, possibly by co-operation with shipbuilders in other sections, secure the development there of shipyards.

THE ECONOMIC EFFECT OF THE MOVEMENT OF NEGROES TO THE NORTH AND WEST.

A MINING and manufacturing company in Ohio advises the MANUFACTURERS RECORD that it has at one point in that State 20,000 carloads of material sold, piled up, ready for shipment, and yet they are only able to receive two or three cars a day, while the loading capacity of the company is about 300 cars a day. At another plant this company is working at about 20 per cent. of its normal capacity on account of shortage of labor. The managers brought from the South about 2000 negro laborers, to whom they have been paying 35 cents per hour; but next door to their plant is another big concern which is paying 36 cents per hour to negro labor, with an additional 10 per cent. If a man works two weeks without interruption, and at the same time the company furnishes sleeping quarters to the men.

In this statement are two facts bearing on two of the great problems before the country—the shortage of labor and the shortage of railroad facilities. The movement of negroes from the South to the North and West has been almost wholly an economic one, due to the fact that they could make larger wages elsewhere than they were getting in the South. We have been advised that the packing-houses of the West admit to having brought 50,000 negroes from the South.

So long as Western and Northern concerns are paying higher wages for negro labor than the men can get in the South on the farm or in the factory we can be certain that the movement will continue from the South to the North and West. All efforts to stop this movement by legislation or by preventing labor agents from working in the South will be in vain. The South must face the situation and meet it as best it can. It must meet it on the part of the factory by paying as large wages as possible until the pay in the South is practically equivalent to the pay which these men can get elsewhere. It must be met on the farm by a better tenant system, by better houses for negro tenants, and, indeed, in this matter for white tenants, and by the encouragement of the business people of every community to negro farmers or farm laborers. Their value to the South must be recognized. They must be encouraged to sobriety, to faithfulness in work; and those whose character justifies it must be given the same co-operation by bankers and others in helping them to finance their farm operations and in securing homes which is given to the white man who deserves it. Without these conditions the negro cannot be held in the South, and there is no prospect of the South being able to draw white labor to any large extent for many years to come. It is not at all probable that we shall have much immigration from Europe after the war for a considerable length of time; indeed, it is reported that an immense number of foreigners now living in this country have already engaged passage to return to Europe whenever the war ends, knowing that there will be a great demand on the farms and in the factories of Europe for labor of every class.

The South must meet its labor problem by harder work, by the use of more labor-saving machinery, by more intensive cultivation. It must, moreover, give to the negro amplest protection of the law, so that in his business dealings he will be kept from being swindled by disreputable, dishonest men, white or black, for the black man preys upon the black man just as the swindling white man preys upon everybody, white or black. The negro must also be protected by the courts, so that he shall have an absolute safeguard against injustice.

These things are incumbent upon the South from the viewpoint of its economic welfare as well as from the higher point of ethics and religion.

In the Macon Telegraph Mr. James Callaway calls attention to the dismay of Chicago at the influx of negroes. He quotes the Chicago Tribune as reporting that they are crowding into that city at the rate of 10,000 a month, and that paper puts the damage to Chicago real estate by their incoming at \$250,000,000.

The Chicago Herald is also quoted as crying out

that "Chicago is threatened not with negro domination, but with negro contamination."

Referring to the Tribune wall of despair, Mr. Callaway says:

And above all, the Chicago Tribune wailing for segregation! The Tribune, which has so criticized the South, pitched into Wilson for segregation of employees of the Government at Washington, berated the Southern people for race distinctions, and whose literature was scattered among our negroes during the campaign of 1916, creating the restlessness that eventuated in migration, is now leading the fight in Chicago against the negroes. Who would have thought it? O, tempora! O, Chicago!

Listen to this from the Tribune, which has been hand in glove with Jane Addams and Dr. Shaw for negro "uplift," in "social betterment" and political advancement:

"Segregation of the negro population of Chicago into restricted sections by legislative action has been proposed and will be pushed by the Chicago Real Estate Board. At a meeting of realty dealers yesterday a committee was appointed to frame such a bill for the Legislature and an ordinance for the City Council.

"That the contemplated step will meet with the violent opposition of the negroes as a whole and of others, too, will be expected, according to the reality men who voiced their opinions in yesterday's meeting.

"The occasion for the movement is the migratory flood of Southern negro laborers, who are pouring into Chicago at the average of 10,000 a month.

"This influx, according to L. M. Smith, I. O. Ackley and others prominent in the board, will do more than \$250,000,000 damage to Chicago property.

"By various artifices the negro real estate dealers are charged with 'ruining' white residential districts by obtaining leaseholds on one building in every block and then renting the property to negro tenants. This action, the real estate men say, causes an immediate depreciation in adjoining property values, and one by one the white tenants move out."

While the economic loss to the South by the movement of negroes into the North and West will for the time be very serious, we are not inclined to look upon the matter as wholly an unmixed evil. The negro problem has been a Southern problem. The South has been misjudged and berated and denounced by the South-hating papers and people of the North and West because of its alleged bad treatment of the negro. Now the negro problem is up to the entire country. It is no longer a sectional or Southern problem, but it is a national problem, and the North and the West will begin to understand its meaning.

This movement of population, however, is not due by any means entirely to the agitation of the "uplifters" and the muckrakers who may have filled the minds of many Southern negroes with the thought of oppression and made them believe that they would have a larger liberty and greater opportunities elsewhere. Fundamentally, the movement is economic. It is based on the higher rate of wages which Northern and Western concerns have been paying ever since the war. Railroads first took up the work in trying to find enough labor to take the place of the immigrants who had formerly done the construction work on railroad jobs. Without this foreign labor the railroads turned to the South for negro labor. This idea spread to manufacturers, and, as indicated in the letter from one manufacturer in Ohio to the MANUFACTURERS RECORD, that concern alone had taken 2000 negroes from the South. This is only one of hundreds of factories which have been seeking to get negro labor because of the impossibility of getting an ample supply of white labor.

Some adjustment of this situation can only come about by a rate of wages in the South somewhat commensurate with the wages paid in the North and West, and by an advance in cotton sufficiently great to justify cotton planters in paying much higher wages than they have ever had to pay in the past. It will be folly to think of low-priced cotton any more for years to come, and the world should adjust its ideas to the basis of higher wages in the cotton field, and from that to higher wages in all Southern activities. This is an economic situation which cannot be changed by laws against labor agents, or in any other way. The South will have to face it and solve the problem on economic grounds.

One possible help to which the nation may have to turn is to permit the free incoming of Chinese and Japanese laborers to supply the pressing need everywhere for a larger labor supply.

WISHES THAT ALL COULD READ IT.

THE HOLLIMAN COMPANY,

Stocks and Bonds,

County Warrants, County Bonds, Municipal Bonds, Drainage Bonds, County and Municipal Loans, All Kinds of Investment Securities.

Fayette, Ala., April 12, 1917.

Editor Manufacturers Record:

I am today sending you my check for \$4 in payment of subscription of the RECORD.

I have a law library of several thousand dollars' worth of law books, but I read the RECORD more, and get more up-to-date information and make more money out of the information furnished from the RECORD than I get out of law books. I appreciate the RECORD very much, and do not see how I could get along without it. The information given under the head of Construction Department is first read by me, and then the able editorials are read.

Your editorials are gems, and should be read by everyone. You are doing a great work in arousing the people of the country, and especially the people of the South, to a sense of duty and patriotism. I only wish that your valuable paper could be read by every citizen of the South, from the humblest to the greatest.

J. M. HOLLIMAN.

The foregoing letter is typical of many which the MANUFACTURERS RECORD receives, all of which are fully appreciated.

To those of our readers who feel as Mr. Holliman does we would like to suggest that they help to extend the influence of the MANUFACTURERS RECORD by extending its circulation. Every reader who feels that the work of this paper is aiding in the development of patriotism and of business throughout the country would be conferring a favor upon every friend he could induce to subscribe. Co-operation by our subscribers in this way would help to broaden the influence of the work that we are endeavoring to do in the aid of the country and of the South.

"THE DAY OF WORLD DEMOCRACY HAS COME."

STEPHEN F. SHERMAN, president International Feldspar Co., 52 Broadway, New York, sends to the MANUFACTURERS RECORD a copy of a letter addressed to the secretary of the Miami (Fla.) Board of Trade, denouncing a statement in a Miami paper that the war was in the interest of Wall Street money, and which statement the MANUFACTURERS RECORD had vigorously assailed. Mr. Sherman's letter was as follows:

What's the matter down where you are? Has Miami forgotten that the money that made Miami and most of Florida came from the class designated in the article clipped from the South's greatest exponent and whose indictment carries weight all over the country? Has Miami become so Bryanized as to be ready to preach treason even if it does not want to practice it? I used to vote for W. J. and admired him greatly, and I can hardly believe that he inspires the sentiment reproduced by the MANUFACTURERS RECORD from the Miami Metropolis. Start something. Start a counter-attack and let the world hear that Miami's commercial body stands square behind one of the greatest men America ever had as a President.

The day of democracy in this world has come. The Kaiser must go and all that Kaiserism stands for.

Here's to America—first, last and eternally!

A GOOD EXAMPLE FOR OTHER BANKS.

IN order to stimulate the raising of foodstuffs in a State where agriculture is almost wholly given to food crops, the First National Bank of Greenville, Pa., is carrying an advertisement in the local papers headed:

FARMERS, BORROW MONEY AT 3%.

In the advertisement the bank is quoted by Financial America as urging the raising of larger crops because of the shortage of foodstuffs this year and the still greater shortage likely to exist next year. It offers to lend to farmers all the money they need, provided the security is satisfactory, for the purchase of seed, fertilizers, farming tools or machinery at 3 per cent., or one-half the regular rate. It will be noted that the money thus loaned at this low rate is for the express purpose of helping farmers to increase their facilities for growing more and larger crops.

THE SOUTH AS A FOOD PRODUCER FOR THE NATION.

UNDER the heading of "Corn in the South" the Chicago Tribune makes the following statements, which are in keeping with much of the misinformation about the South which that publication is guilty of putting out:

One of the most important things in the campaign for increased food production—and that may be the most vital thing in the whole war—is to increase the food production of the South.

That is not a matter that will take care of itself. The South is devoted to cotton. At the present time the price of that commodity is high and the temptation to produce it in maximum quantities is great. But corn is more needed than cotton, and the South can raise vast quantities if it will.

There should be a heavy tax imposed upon cotton. Profits on cotton are war profits now—excess war profits. Other commodities are going to be taxed—the meat produced in the West and North, steel products, a necessity of war and peace; copper through voluntary reductions of profit, and shipbuilding, alcohol, tobacco, and all luxuries. So the production of cotton should be curbed in the nation's interest.

The Southern planter will not be unjustly burdened by such a tax. He will make a handsome profit on his corn and he will do his country a service into the bargain.

Congress under its present organization and the administration have done very well by the South. Now, it is time for the South to contribute to the national cause by planting its land to corn and other food products.

The position of the South in regard to grain and other food production is greatly misunderstood. In the record-breaking crop year of 1915 the South produced in round figures 1,600,000,000 bushels of wheat, corn and oats, or a gain of 344,000,000 bushels over the preceding year out of a total gain for the United States of 700,000,000 bushels. In that year the South produced 1,248,000,000 bushels of corn out of a total of 3,000,000,000 bushels for the entire country. And yet the Tribune and many others speak of the South as though it produced little or no foodstuffs.

The blunder of the Tribune in this particular, however, is not greater than its blunder in referring to cotton, or its suggestion that a tax should be imposed upon cotton because of excess war profits. Even 20-cents-per-pound cotton will not buy as much flour, provisions and manufactured products at present as a few years ago could have been bought with cotton at 10 cents per pound. There is no earthly reason why the Southern cotton planter should be taxed on cotton unless a similar tax is placed on all of the agricultural products of the West.

The gratuitous insult in the last sentence of the Tribune's editorial is in keeping with the density of the ignorance which prevails in that office and in many other places.

The South annually contributes tens of thousands of carloads of early fruits and vegetables, tens of thousands of carloads of citrus fruits, and many thousands of carloads of cabbages, onions and other products to help feed the nation. Since last September Florida alone has shipped out, mainly to the West and North, over 25,000 carloads of vegetables and fruits, of which over 1600 carloads were cabbages. The South is, moreover, contributing largely to the nation's sugar supply. It produces all of the rice grown in this country, except a limited amount on the Pacific coast. It contributes all of the cotton, just as essential at the present time to national safety as the corn and the wheat of the West. The South ships thousands of carloads of livestock from Texas, the greatest cotton-growing region, and many carloads of livestock from other States to the stockyards of Chicago and other Western cities.

In growing cotton the South is not only producing a staple which is essential to the business life of the country and its power to produce explosives, but it is contributing a vast amount directly to the food supply. In summing up what a 12,000,000-bale cotton crop means to the country, Mr. John T. Ashcraft, secretary of the Interstate Cottonseed Crushers' Association, says that a crop of this size means in food "1,400,000,000 pounds of cottonseed oil," which is a foodstuff, and without which Chicago's oleomargarine factories would have to close. This cottonseed oil is more than twice the amount of creamery butter produced in the United States, and

is nearly equal to the total butter of the country produced on farms and in creameries.

"Cottonseed oil," says Mr. Ashcraft, "has a food value of 4080 calories per pound and a digestive availability of 97.9 per cent. Butter has a food value of 3490 calories and a digestive availability of 77.5 per cent.; and cottonseed oil sells at about one-third the price of butter."

Moreover, a 12,000,000-bale cotton crop, according to Mr. Ashcraft's statement, "would mean in feed for livestock 3,800,000,000 pounds of cottonseed meal; and 2,400,000,000 pounds of hulls which would, when properly combined, make a stock feed of the most exceptional value," and this stock feed goes largely to other sections, as well as to Europe, to help maintain the cattle industry.

"In clothing, such a crop means several times the total amount of all other clothing material produced on the North American continent.

"In munitions it means 700,000,000 pounds of linters, absolutely necessary to an adequate supply of explosives.

"In connection with the cottonseed-oil industry there is being developed a great peanut industry in the South for oil-making purposes in cotton-oil mills."

And in closing his statement Mr. Ashcraft makes the following comment, which should command attention:

"Of course, other foods and feeds should be produced in abundance, but nothing should be done that would lessen the interest of the South in the staple crops she knows how to grow. The huge food and feed value of the cotton crop is little understood and is often overlooked. It finds no mention in the 1916 report of the United States Secretary of Agriculture, and those now addressing food meetings of the South seem to make no mention of it."

And to this might be added that the Department of Agriculture has omitted entirely in all its campaign work to give to the South credit for this great contribution of cotton to the food supply, and also to give credit to the South for sending to the North and West annually over \$100,000,000 worth of vegetables and fruits, without which many a Northern and Western man would go hungry.

WILL MR. BRYAN DO IT?

IT has been said that "while the lamp holds out to burn the vilest sinner may return," but ere the sinner's sins be forgiven and his repentance be accepted as genuine he must confess his sins. Will Mr. Bryan frankly confess to a waiting country his unspeakable folly in the suggestion of a million embattled farmers rushing to save the nation, and admit the folly and the wickedness of the fight that he has made against preparedness?

It is all very well for him to volunteer at this late date to support President Wilson and to enlist as a private, but the question may be asked, Why did he not enlist without making such a public announcement of his willingness to do it? Had he enlisted as a private quietly, as other men are doing, the country might have accepted this act as proof of the genuineness of the realization of the folly, if not wickedness, of which he has been guilty during the last two years in his effort to tie the nation's hands and thus turn us over, body and soul, to Germany.

If Mr. Bryan, who dearly loves the spotlight of publicity, will frankly confess the error of his ways and ask the nation to forgive him, the nation may in future have more confidence in him.

FLORIDA'S BRIGHT FUTURE.

THE splendid progress of Florida has not even been temporarily halted by the freeze which for a few days last February frightened many and injured some. This freeze, the severest for some years, caused considerable loss of unpicked oranges and some loss of trees. But its damage was much less than many had feared, and Florida moves forward with as much optimism and enthusiasm as though there had never been a freeze. Indeed, that State is so wonderfully blessed that it would grow

populous and rich even if it never had known an orange or grapefruit grove. Its resources are many. Its climate is an asset worth almost limitless millions to it; indeed, its climate is an asset of such supreme national value that the nation should count that State as one of its greatest assets.

The activity in drainage operations, in the development of large tracts of land running into hundreds of thousands of acres, the building many hotels, large and small, the increasing recognition all over the country of the predestined great development of the State, all combine to give some hint of the future of a region so richly endowed.

Florida is a State of great possibilities in cattle-growing, in early fruit and vegetables as well as in oranges and grapefruit; but, more than that, Florida is a State of great possibilities for corn-growing, for sugar-cane growing and for other industries which will enrich all interests in the State.

The future of Florida will steadily grow brighter, despite the handicap of unfortunate political mistakes.

HOW NEW ENGLAND IS SETTING AN EXAMPLE IN SHIPBUILDING ACTIVITIES—THE SOUTH'S OPPORTUNITY.

UNITED STATES SHIPPING BOARD.

Washington, D. C., April 22.

Editor Manufacturers Record:

Your letter of the 18th to General Goethals has come to my attention in his absence.

I am indeed pleased to note what you are doing to help the Government in this emergency in securing ships that are so urgently needed. Our instructions for the present are to build as many ships as possible. We are not making any statements as to number, but I hardly think we will be able to build as many as 300 for a very considerable time to come, but I hope that the need will not be as great as that. The task is a big one and we need the co-operation of everyone.

I have for some time felt the power of your organization, and am very glad that you are going to make it effective to help us in this work.

I have for two months been making studies of the possibilities of the different sections of the country for producing these ships, and am convinced that the South Atlantic and Gulf coasts should be able to do a very important part of the work. These ports are close to a very good supply of timber and, fortunately, the labor conditions in this section are somewhat more favorable than in some other sections.

New England used to be thought of as the part of our country most associated with wooden shipbuilding, but I believe before this war is over the South, with its present greater resources of timber, may accomplish more than New England. But New England is not asleep. It may be of interest to you to know that the State of Maine has appropriated a million dollars to help its shipbuilders make a creditable showing in this work. The State of New Hampshire has appropriated half a million for the same purpose. The Governor of Maine has called upon me personally to learn how his State can be of the greatest help. I cite these only to urge you to arouse the section with which you are particularly identified to do its utmost to help us.

While I appreciate official calls, I do not want them, but I do want everybody to get busy in his own section and do the most he can to help us get these ships built quickly. The need is pressing.

F. A. EUSTIS.

The foregoing letter from Mr. Eustis of the United States Shipping Board should stimulate the people of every Southern port and cause a general awakening as to the opportunity for action in shipbuilding. Mr. Eustis shows that Maine has appropriated a million dollars and New Hampshire half a million to aid shipbuilding concerns in these States to do their part in the utilization of this opportunity to aid this country and civilization.

Moreover, the Governor of Maine has made a personal call to see if he can find how the State of Maine can co-operate to the fullest extent.

What are the Southern communities, so greatly blessed with shipbuilding advantages, doing to match the activity of Maine and New Hampshire?

Is there not some danger that the South will fall down on this situation and fail to do its share, and thus fail to get the benefit which would come from the creation of shipbuilding industries?

Mr. Eustis gives strong praise to the South's shipbuilding advantages, but he also points out the vigor with which New England is tackling the situation.

INDUSTRIAL CORPORATIONS SHOULD SUBSCRIBE HEAVILY TO GOVERNMENT BONDS.

THE decision of the United States Steel Corporation to take \$5,000,000 of the new Government bonds suggests the thought that the large industrial corporations of the country, and even many of the smaller ones which have accumulated more surplus than is actually needed for working capital and for the protection of their operations, should invest heavily in these bonds and whenever extra dividends are declared pay them in Government bonds. In this way these bonds would be widely distributed to many people who otherwise might not become bondholders, and the big concerns especially, which have piled up a large amount of cash far beyond their immediate needs, could utilize this money to the benefit of the entire country by putting a large proportion of it in Government bonds.

The Steel Corporation, for instance, has accumulated an enormous cash surplus. It could well afford from every point of view to be a very heavy subscriber to Government bonds and carry them in its treasury instead of cash, and whenever extra dividends are declared they could be paid out of these bonds. A similar policy could to advantage be followed by the Standard Oil Co. and other strong financial interests, who should take the Government bonds very heavily even though the rate of interest may be very much less than they can make their surplus money command.

Industrial and financial concerns throughout the entire country by following this policy could very largely aid in a wide distribution of these bonds to the advantage of the Government and of the whole country.

COTTON CONSUMPTION FOR EIGHT MONTHS AND STOCKS ON HAND MARCH 31.

FOR the eight months ending March 31, 1917, 4,517,096 bales of cotton were consumed in American mills, in comparison with 4,230,208 bales for the corresponding period of 1916, a gain of 286,888 bales, or 6.8 per cent. This rate of increase does not reach the percentage attained in the cotton year 1916 over 1915, which was 14.3 per cent. for the whole country.

The consumption of linters for the eight months under discussion amounted to 547,613 bales in 1917 and 606,671 bales in 1916, a decrease of 59,057 bales, or 10.5 per cent.

In the consumption of cotton, both foreign and domestic, by the mills of this country, the amount for the month of March showed a decrease of 11,524 bales, or 1.9 per cent. over March of last year, the amounts being 602,230 bales in March of this year and 613,754 bales in March, 1916. There was also a decrease of over .9 per cent. in the March consumption of linters, the figures being 73,170 bales for March, 1917, and 80,476 bales in March of last year.

Southern cotton mills consumed 2,589,177 bales in the eight months ending March 31, 1917, an increase of 276,567 bales, or 11.9 per cent., over 2,312,610 bales consumed in the eight months ending March 31, 1916. This does not reach the rate of increase of 16.6 per cent. in the cotton consumption of the South for the cotton year 1916 over 1915.

For the month of March Southern mills also increased their cotton consumption from 335,897 bales in 1916 to 340,511 bales in 1917, a gain of 4,614 bales, or 1.4 per cent.

The number of bales of cotton consumed in mills outside of the South for the eight months was 1,927,919 in 1917 and 1,917,598 bales in 1916, a gain of 10,321 bales, or only .5 per cent., as compared with 11.9 per cent. increase for the Southern mills. Mills outside of the South consumed 261,719 bales in March, 1917, compared with 277,857 bales in March, 1916, a decrease of 16,138 bales, or 6.2 per cent., compared with the increase in consumption of 1.4 per cent. made by Southern mills in March, 1917, over March of last year.

The amount of cotton on hand March 31 in consuming establishments and in public storage and at compresses in the United States was 4,954,936 bales

in 1917, compared with 5,386,933 bales in 1916, a decrease of 431,997 bales, or 8.7 per cent.

Cotton on hand March 31 in consuming establishments, public warehouses and at compresses in the South amounted to 3,630,884 bales in 1917 and 4,087,399 bales in 1916, a decrease of 456,515 bales, or 12.6 per cent., while the number of bales on hand in the States outside of the South in 1917 was 1,324,052 bales, and 1,299,534 bales in 1916, an increase of 24,518 bales, or 1.9 per cent.

The quantity of linters on hand in the United States March 31, 1917, was 379,718 bales, and 316,940 bales in 1916, or 62,778 bales, or 19.8 per cent., more on hand this year than at this time in 1916.

We imported 212,984 bales of foreign cotton in the eight months ending March 31, 1917, or 101,071 bales less than were received for the same period in 1916. We exported up to March 31, 1917, 4,329,402 bales, or 318,024 bales less than were exported up to the same time in 1916.

During March the number of active spindles in the whole country was 33,233,072 in 1917 and 32,028,670 in 1916, a gain of 1,204,402, or 3.7 per cent. In Southern mills in March, 13,839,718 spindles were in active service in 1917, a gain of 782,014 spindles, or 5.9 per cent., over 13,057,704 active spindles in March, 1916. The number of active spindles reported in mills outside of the South for March, 1917, was 19,393,354, compared with 18,970,966 in 1916, an increase of 422,388 spindles, or 2.2 per cent., for March over the corresponding month of last year.

THE GOVERNMENT WILL GO AHEAD VIGOROUSLY ON THE NITRATE PLANT OR PLANTS.

THE MANUFACTURERS RECORD is glad to be advised from the office of the Chief of Engineers of the War Department that active work is now in progress in regard to the selection of a site or sites for a nitrate plant or plants. Studies of localities and processes are being actively pursued. Progress is being made, and we are advised that "there is every reason to believe that at an early date the United States will be in a position to manufacture all the nitric acid it will need for military purposes."

It became necessary a few weeks ago for the Inter-Departmental Board, consisting of three Cabinet officers, not to leave Washington for the purpose of further investigating the question of sites. It can be readily understood by the public that it would have been impossible for this board, under the conditions existing, to continue their personal investigation of various sites, but we are glad to know that there has been no halting in the active work of investigating and of planning for the building of a plant or plants, according to the final decision of the board as to whether there shall be one or more plants.

The MANUFACTURERS RECORD is satisfied that whenever this decision is reached some point in the South will secure one of the plants if more than one should be built, and we trust that if the decision should be in favor of the building of only one plant, that this may be located in the South; but, of course, no official information is as yet available on these points.

The net earnings of the United States Steel Corporation for the quarter ending March 31 amount to \$113,121,018, a gain of over \$7,000,000 in excess of the preceding quarter.

New Shipyard at Apalachicola.

Apalachicola, Fla., April 21—[Special.]—The organization of a large shipbuilding company for the construction of wooden schooners up to 1000 tons has about been completed in Apalachicola, and the work of preparing the yard for the work will commence shortly. The company is being organized locally, with some outside capital.

J. F. Warren is gathering information and prices on material for the work. This company expects to be ready for operation within a few weeks, and is open for offers on its production.

APALACHICOLA CHAMBER OF COMMERCE.

Revised List of Awards of Patrol Boats or Submarine Chasers.

A revised list issued April 13 covering all contracts let for submarine chasers or patrol boats shows that the South has contracts for 43 out of a total of over 200. Other Southern concerns are negotiating for orders, and soon the shipyards of this section may perhaps be doing their share of this work.

Barrett Shipbuilding Co., Mobile, Ala.	4 at \$44,000.00
F. M. Blount, Pensacola, Fla.	4 at \$45,000.00
Burger Boat Co., Manitowoc, Wis.	1 at \$52,000.00
Chance Marine Construction Co., Annapolis, Md.	2 at \$49,000.00
Camden Anchor-Rockland Machine Co., Camden, Maine	1 at \$51,000.00
Chas. A. Dean, Alexandria, Va.	2 at \$48,250.50
Dubuque Boat and Boiler Works, Dubuque, Iowa	2 at \$52,000.00
The Elco Co., Bayonne, N. J.	16 at \$50,000.00
Eastern Shipyard Co., Greenport, N. Y.	5 at \$50,900.00
L. E. Fry & Co., Clayton, N. Y.	2 at \$43,735.00
Great Lakes Boat Building Corporation, 333 Beecher St., Milwaukee, Wis.	2 at \$52,000.00
Gibbs Gas Engine Co., Jacksonville, Fla.	3 at \$44,500.00
Hodgdon Bros., E. Boothbay, Maine	2 at \$37,500.00
Hartman Grilling Co., Green Bay, Wis.	2 at \$40,566.75
C. Hildebrandt Drydock Co., Kingston, N. Y.	15 at \$44,540.00
International Shipbuilding & Marine Eng. Co., New York City	1 at \$48,000.00
Robert Jacob, City Island, N. Y.	5 at \$52,000.00
Kyle & Purdy, City Island, N. Y.	5 at \$52,000.00
George Lawley & Son Co., Boston, Mass.	20 at \$52,000.00
Luders Marine Construction Co., Stamford, Conn.	5 at \$52,000.00
Mathis Yacht Building Co., Camden, N. J.	5 at \$49,500.00
Alex. McDonald, Mariners' Harbor, L. I., N. Y.	4 at \$42,832.00
The Newcomb Life Boat Co., 716 Hawthorne Ave., Richmond, Va.	1 at \$49,329.00
The Matthews Co., Port Clinton, O.	4 at \$48,565.00
New York Yacht & Engine Co., Morris Heights, New York City	10 at \$52,000.00
Rocky River Drydock Co., Rocky River, O.	20 at \$49,950.00
Smith & Williams Co., Salisbury, Md.	2 at \$52,000.00
Vinyard Shipbuilding Co., Milford, Del.	2 at \$42,500.00
Howard E. Wheeler, Brooklyn, N. Y.	1 at \$41,500.00
	9 at \$47,085.00

Planning for Greater Utilization of Waterfront at Memphis.

Memphis, Tenn. April 21—[Special.]—Upon the suggestion and under the leadership of Mayor Thomas Ashcroft, Memphis citizens will no doubt vote \$500,000 in bonds, the proceeds of which will be used in the construction of municipally-owned wharves and warehouses on the Mississippi River front in the near future. Mayor Ashcroft, in advocating the establishment of these facilities, points to the fact that under the present conditions Memphis shippers are not getting the advantages, nor are they saving the money that shippers in other important river ports are enjoying. Such ports as Kansas City, St. Louis and New Orleans are spending large sums now in the enlargements and extensions of their port properties. A committee of five expert engineers will soon be appointed by the Mayor to investigate other ports and report back to the city of Memphis as to the best financial and technical plans to adopt.

The most important project completed here during 1916 was the Wolf River Diversion Canal. This canal was built as the result of the Mississippi River changing its course so as to fill up the Memphis Harbor channel. By damming up the Wolf and Loosa Hatchie rivers and diverting their courses through the canal, the deep waters along the levee in front of the business section have been restored. Major M. J. McDonough of the local engineering office, was in charge of the work.

Storage Bins for New Orleans Grain Elevator.

Contract has just been awarded by the Board of Commissioners of the Port of New Orleans, La., to Janse Brothers, Boomer, Crain & Howe, general contractors New Orleans, La., for the construction of 112 circular storage bins as an addition to the New Orleans Public Grain Elevator, the features of which were illustrated and described at length in the April 19 issue of the MANUFACTURERS RECORD.

These new bins, which will be built of reinforced concrete, will have a capacity of 1,600,000 bushels, and will cost approximately \$650,000.

Estimates on elevating and conveying machinery are now being asked, and Chief Engineer J. D. O'Reilly of the Board of Commissioners is receiving bids on all materials.

The Present National Crisis and the Food Situation

SOUTH'S RESPONSIBILITY IN THIS THE SUPREME HOUR OF CIVILIZATION

By CARL VROOMAN, Assistant Secretary of Agriculture.

The most powerful nation in the world and the most peaceful nation in the world at last has been forced into the arena of war. For three years the Old World has marveled at and misunderstood the patience of this great land, and today they misunderstand and look with uncomprehensive wonder on our advent in the arena, and they wait to see whether or not the red in our flag stands for something richer than sentiment; they still are in doubt as to what our entrance means; they still, many of them, think we are a nation of dollar worshippers, of pacifists; that we are a nation grown fat and flabby and rich, and that we are unable either to defend ourselves or to defend the great principles upon which this nation was founded and which has made it great.

When this war started the people in Europe thought all they needed was an army. Germany had a great army; France a good army; Russia thought she had an army; England knew she didn't have one, but she called to the young men. They flocked to the colors. The colleges were emptied and tens and hundreds of thousands of young men who should have been officers were privates and were shot up during the first six months. It took them that time to learn that an army does not consist merely of soldiers. They found out that the Germans had guns that would shoot farther, and before they could meet them they would have to build huge cannon, and it took them months to do this. The first year of the war was over before England got the guns, and then they found that they didn't have enough shells. Then they built factories. Still they didn't have enough. They called on Lloyd George to become Minister of Munitions, and then Premier, till today, under his leadership, England is turning out every 24 hours more powder and shells and munitions of war than formerly she did in a year. Today they meet Germany with a supply equal to Germany and greater than Germany, and still they have something to learn.

They found themselves all of a sudden launched in the midst of a terrible strike. The laboring men of England refused to work in the mines and factories and on the railways. Lloyd George made speeches. He always had been able to go out and calm the laboring man as the Master had calmed the waves of the sea, but this time he uttered his message of patriotism to the men; it fell on deaf ears, and the men said:

"Don't tell us we are not patriotic, but we do not intend to work until we have justice."

And he said, "What do you propose?"

"Our employers say that we are a lot of slackers; that we were disloyal and unpatriotic. We will not only work for low wages, we will work without wages provided the employers will put their factories, their mines and railways at the disposition of the country without any profit or dividend."

Then the Government called the capitalists and the laboring men and the Government officials into a council of war. They worked out a plan which safeguarded the legitimate interests of all, guaranteeing a reasonable profit to the capitalists and taking care of the common interests of the nation. Since that time Great Britain has worked under the guidance of Lloyd George as though it were composed of a people whose hearts beat in unison for the purpose of bringing victory to the cause for which their nation entered the war. They discovered that you haven't got a country prepared until you have taken the word "justice" out of the skies, out of the theories and books, and written it into the laws and institutions of the land.

And even then they hadn't finished the highest course of instruction which this war has given to Europe. Even then they found that they had overlooked something. Germany, France, Italy, Austria-Hungary and England all found the same thing. After they had solved the other problems they found that one problem, the greatest of them all, the problem that humanity has been trying to solve as far back as history goes and then back for many years, the world-old problem, the fundamental problem of feeding mankind was still unsolved.

Today, according to the head of the War College,

Germany has 30,000,000 people who are slowly starving. Every other nation in Europe is on a war diet. Even in England they are on war rations. People cannot buy what they want. They have to eat what the Government will let them have, and they have set themselves to work, each country with a food dictator, to safeguard the agricultural food resources to make them go as far as possible without letting the people starve. England is plowing up her parks. London is putting in every inch of available land in the raising of foodstuffs. They have food only three weeks ahead in England, and if the submarine warfare had succeeded in keeping away our ships and the ships of Australia and Canada bearing food to England they would have brought England to her knees by this time. This war is being fought out in Europe over the question as to which nation can feed herself the longest.

Now we have entered the war. You know and I know that it will not be possible during the next six months for us to send over to the trenches more than a few thousand men. It is probable that we will send a division over there just to plant Old Glory in the trenches of France, just to say to the French people, "You sent us Lafayette, you sent us Rochambeau, you helped us when we were weak and young and struggling for liberty, and now we come back with the cream of our young men, just to take over one mile of trenches, just to take for ourselves a place by your side, just to show you what we will do a little later on on a large scale as soon as the giant of the western hemisphere has prepared himself for the struggle." And that splendid people will appreciate that, as I know from a conversation with one of their officials whose name I will not mention.

Now, we have the food problem in the United States. We must increase the food supply. It is up to this people to plant food, and more food, and still more food, so that this people may not go hungry, so that our soldiers may not go hungry, so that our allies across the water may not go hungry. Our greatest duty, our most vital duty, is to raise a great food supply for ourselves and our allies to last as long as the war will last. But even then we have another problem, namely, of seeing to it that our merchant ships loaded with food and supplies shall not be sunk by the submarines, but shall be allowed to proceed. We have some big problems. We are a big people, but are we awake?

Everybody can do something. I don't want anybody to get all stirred up with patriotism and patriotic emotions and then go home and sleep it off. I want you to do something, to determine to do something before you leave this house tonight. A pledge is being published in the newspapers that every man, woman and child in this State, and in the nation, should sign. It is a pledge, during the coming war, to do some one definite and useful thing to help your country in this crisis, and mind you pledge yourself to do something that amounts to something. Pick out a life-sized problem, a man's problem. Don't pick out something easy.

Now, there are two or three obstacles to getting the food supply. Two chief obstacles, I am told by a number of people. First the landowners. I am a landlord myself. I have a great many tenants. I know their difficulties; they are many. It is a hard job to get a tenant to farm right. It is a harder job to change his system of farming and still have him farm right, and when I am asking you to change a part of your acreage I am not trying to ask you something easy. If that is the kind of a man you are, you don't belong here. If you are looking for something easy, you don't belong in the American nation at this time and you don't deserve the protection of the stars and the stripes. We are asking these boys to go to the front. We are asking them to go out there under the stars and stripes, and if need be, be shot to pieces, to be made cannon fodder of, and then when I ask you to take some little trouble and change your acreage, a part of it, from cotton to corn and soy beans and rice and sweet potatoes, you say that is different;

it is a very difficult matter to do. It means that you will have to get among your men and teach them to handle the crops. It means trouble for you. It means work and sweat and toil and worry, but if you are not willing to sweat and toil and worry for your country, you don't deserve to be an American. I don't know what percentage of your land you can change. I don't know how much is practical to change. It is different with different people. I want every one of you to do what you can, and don't pick out a soft, easy job. Remember this, you can serve your country in this crisis just as effectively in the furrows as in the trenches. It may not sound as glorious. It may not sound as heroic, but I will tell you we need food, and we need it worse than any other one thing.

The South is importing from the North and West anywhere from \$500,000,000 to \$1,000,000,000 worth of food and feedstuffs every year. If you will learn to feed yourselves, if you will plant enough to feed the South, that will release for our soldiers and the allies this immense sum of \$500,000,000 or \$700,000,000 or \$1,000,000,000 worth of foodstuffs. That may be decisive. That may change the current of war. That may mean that the war will stop within six months instead of dragging on for six years. What anybody does now is important. If you put in only a little garden, it is important. It raises enough food for you. Find out how to put up your food to feed you during the winter months. It may not feed many men; may not produce enough food for your family; but it will produce, and that means that you have entered into the war to the extent of your ability and that you are doing your part to produce for our soldiers and the soldiers of the allies in this great crusade for humanity.

We are probably going to lose a lot of our farm labor. A lot of our farm labor has already gone to the cities. We are very short of farm labor. Yet there are in every State thousands and tens of thousands from the age of 15 up in the schools. Many of them are country boys who understand how to work on a farm, who know how to put in crops, and if they stopped school tomorrow and went out on the farm where their families live and went to work at putting in food for two or three weeks it would be the most patriotic thing they could do. And if there are any boys here who have fathers who are a little too strong for cotton they can do a little work on the old man. They can say, "Dad, I will enlist. I will lay aside my school books and I will enlist, not to fight in the trenches, but I am old enough to fight in the furrows and I will put in the food crops on the old farm."

Now, let me say a word about cotton. It is a great crop. Not only the South is proud of cotton, but the whole country is proud of this nation's greatest cash crop, the crop we send across the sea to make a favorable balance of trade for America. I have no word of disparagement for cotton, and I don't want the South to neglect to plant cotton, but I want to say that the days of kings are over, and old King Cotton has got to go with all the rest. I am not asking you to decapitate him, I am only asking you to depose him. You can make a constitutional monarchy of him and make his ministers all the food crops the South will produce, but the autocracy of cotton, the one-man rule of cotton must be terminated in the South because of the imperative call of your nation, and in the future cause you will never build up in old Dixie a civilization worthy of your possibility so long as you have only one crop to plant.

This is all very well, but are you going to do it? How are we going to reach our people? How are we going to reach the little farmer? How are we going to reach the little merchant? and, by the way, I nearly forgot the merchants. They are our other stumbling block, along with the landowners. They are the most difficult class to handle, because the merchant makes a lot of money off the farmer who buys tin cans at his store. They make a profit out of the lack of thrift and the lack of household preparedness, which may have been all right in the past. I am not criticising the merchants; I am not saying that they are going to take that view in the future, but that is one of the obstacles that we are going to overcome. I knew there would be obstacles. In a time like this, an obstacle is something that makes the patriotic fervor of the nation mount higher, and if you know of any merchant who in spite of the present hour still puts his personal private, selfish interest above the nation's interest, then you know a man who is not worthy to prosper under our flag, a man

who is disloyal at heart, a man who is not only not a patriot, but a man who in the hour of our need is failing the country which has given him everything in life worth living for. I don't think we are going to have many of them, but if we do, have a little heart-to-heart talk with them. It is easy to misunderstand things, and if there is anybody else who does not understand, remember every one of you is deputized to go out as an apostle of preparedness and to talk with your neighbors and to reason with them and to show them that for an American citizen there is only one path, and that is the pathway of honor and of patriotic service.

Right on this point I want to say a word about the seed men. You cannot have crops without seeds, and many times the farmers simply cannot afford to buy seeds. My message to the seed merchants is to tell them what the President has told the nation—that this is no time for large profits. Some seed men I know are patriotic enough to forego all profits in this crisis, and they are furnishing seed in quantities to men who desire to put in food crops at cost and on credit. This is the spirit of America today.

There are at least a dozen lines of activity in which women can participate under the flag. I am so glad that the women have come to realize that they have two duties. The first to inspire the men to meet the obligations they have, and second to take up their work and do it as an example to the men. In England today the women are playing a role that they have never before played in the history of mankind. Mr. Asquith has said that he now believes in giving women the suffrage. He always opposed it before, but what he was not willing to grant them when they tried to force him he believes in now when the women have come forward and have done their duty. There isn't a single line of activity in all their national life save fighting in the trenches that the women are not performing for their country with the same valor and heroism as the men. Are the women of this country going to be backward? They never were in the past, and they will not be at present, but some of them may be unless the rest of them talk with them and show them the imperative need of all to do their duty in this present hour.

There is another point. It is not only your duty to feed yourselves; most people consider it a privilege to feed themselves; most people are only too glad to help themselves to food, but there is something else pushing you to plant food crops this year, and that is, necessity.

This country is going to carry the war to a finish, and a successful finish. We are going to call for 500,000 volunteers for our army now. We are going to next call out another 500,000 men on a plan of universal service. And then still another 500,000, and then as many more as we need, but those are not all the people who are going to work for our country. Everybody in this country is going to work, either voluntarily or from compulsion. We are going to have universal service on the farm and in the United States we are going to have universal service for every man, woman and child. Those of you who get in first can have the front seat as a volunteer.

You have heard about "selective conscription." I'll tell you what that is and how it works. Selective conscription means that the men who are highly trained in any useful profession shall not go to the front. Men who are adapted for use as officers will not be allowed to enlist as privates. They will be trained first. Mechanics, munition workers, railroad men, leaders in agriculture like the county agents and the professors in the colleges—these men will not be selected for military conscription because they are already doing their bit for their country in the most efficient manner. The men who will go to the trenches are those who can be spared without crippling the work behind the battle lines. I predict that the first to be conscripted from the South will be those who are raising all cotton and no food-stuffs. These men would probably be put in the first line of trenches.

Now, as to the South feeding herself. Do you know that if you don't feed yourself you run a serious danger of not being fed during the next year? Did that ever occur to you? You know during the past year our transportation systems have been tied up. There was a car shortage, a car famine, and now, with war upon us, what kind of a car shortage may there be in the next few months? You are going hungry. Suppose the President should come down and make you a speech. Suppose you implored him to send you food. He would say: "About three months ago we sent our officials

out and we told you that the South was going to be expected to feed herself. We told you, furthermore, that we had a perfectly good and valid right to ask you not only to feed yourself, but to feed your quota of our allies, but that we only asked you to feed yourself, to stand up for yourself and to see to it that you were not a drag. We might have asked a lot more, and you didn't even do that."

About how high up would you feel? I don't anticipate any such complication in the South, but that is what would happen if the South failed to rise to her present opportunity and put in enough foodstuffs to feed herself.

New England can't feed herself; she hasn't got the soil. She is importing as much food from the West as you are, but she can't feed herself. The granite hills of New Hampshire sound well in poetry, but they don't butter the parsnips. The South is expected to feed herself, but is not asked to feed the soldiers on the battlefields of Europe. We may ask that from you two years from now, but this year we are only asking that you take care of the South.

That brings me to another point on food conservation. You can't begin too soon. You are not going to have any too much food with our wheat crop in the state it is in now. I expect very soon this country will have to be put on a different basis regarding the food situation. The flour mills, instead of grinding up 72 per cent. of the wheat berry, will have to grind up 85 or 90 or even 100 per cent. If you ground up 85 per cent. in all the mills in this country, it would mean an additional amount of flour equal to 60,000,000 bushels of wheat. The same is true with regard to the rice. Today you take your rice and not only take off the husk, but you polish it. You polish away the best of the rice. That ought to stop. The rice is far more nourishing when it is not polished. People who live on polished rice get the disease known as berri-berri, but if they eat the rice in the unpolished state they do not get this terrible disease.

And if you run out of meat you have a wonderful crop down South—the soy bean and the cowpea. These are perfectly delicious human food when properly cooked. I had some baked soy beans the other day; they are like the Boston baked beans, only you don't have to put fat meat in them, because this bean is full of vegetable oil. A pound of soy beans has more nourishment in it than a pound of sirloin steak. The South can raise all these things in abundance. If you don't do it, it is your own fault. The call has come in plenty of time. God has given you a backward spring, so your cotton has not yet all been planted. Therefore it is up to you to go to work now with the committees that are working on this and not only see to it that you do your part in your own way, but go out as a missionary. If you can't go out, write letters and telephone and get busy during the next two weeks and see to it that a crop of food is put in that will feed the people of your own State and perchance allow you a little surplus to supply your neighboring States.

As this war proceeds let us remember that this great democracy is going to be successful in proportion only so far as it keeps its hands clean and its heart pure. Only in this hour are the people willing to suffer for principles.

Something happened in New York that I want to tell you about. I come from a farm up in Illinois. I have always been a little suspicious of New York and the influence of Wall Street. I sometimes mention them; in fact, I frequently mention them, and not always with praise, and so I like, when I can, to say something pleasant and complimentary about them.

One of the financiers, who is a member of the Council of National Defense, a Wall Street speculator, Mr. Baruch, called together the copper magnates and he said: "Gentlemen, I want to talk with you about the copper this country is going to need in war. We will need a great deal of copper. We will need millions of pounds. Now, we do not want it at market price. It costs you to produce something about 8 cents a pound, and you are selling it at 32 cents. I am making you a patriotic proposition. I am not talking as one business man to another. I am talking as one American to another when our nation is in peril." He had around that table men who represented nine-tenths of the copper production of our country. He said to them: "I will leave you now, but will be back in half an hour. While I am gone I want you to decide what price you are going to let the Government have the copper at. We

want all we need on the instant we demand it, and we want it at a price which will allow you just a simple ordinary business profit." He said no more and went out. He came back in a half hour and another Wall Street magnate said: "We have decided to cut our prices in half."

That is the spirit which should animate every business man in the nation from now until the war is finished.

I haven't attempted to disguise the situation. We are not asking easy things of this people, and we can't expect to be niggardly in responding. The Government does not expect that every citizen in this Commonwealth is going to look around and see what is the least that he or she can do, but that they will look for the most they can do. If you will adopt that spirit, then this nation is going to make a showing before the other nations of the world which is going to renew the love and admiration which the people feel for democracy. Look what happened to the monarchy of Russia. Look what is happening to Prussia and Austria-Hungary. The more despotic the government the weaker it is in the long run. This democracy has been slow to wrath; beware the wrath of a just man. At last we have girded on our sword. We have sent word to all the nations of the world that America, under the leadership of the greatest man in all the world, is to go forth as one man to do battle for that principle upon which our nation was founded, and those principles which we hope to see extended to every nation in the world, so that they, too, may enjoy the blessings of liberty, of democracy, of social justice and of humanity.

The Spirit of the South Demands That Recalcitrant Politicians Shall Not Misrepresent It.

Charlotte, N. C., April 22.

Editor *Manufacturers Record*:

This is what we did on yesterday, backed by big mass-meeting:

"Whereas, the President of the United States, after infinite patience and forbearance, has been forced by the aggressive and illegal acts and repeated insults of the Imperial German Government to declare that a state of war exists between the United States and Germany; and

"Whereas, in his great wisdom the President has asked the Congress to provide him with an adequate army and navy with which to uphold and defend the honor and high principles for which the American people have always stood; now, therefore, be it

"Resolved by the citizens of Charlotte and Mecklenburg county, in mass-meeting this day assembled, That we unreservedly approve and endorse our President in his course of action, and that we will uphold and aid him by all means in our power in carrying his policies to a successful and glorious conclusion. And we respectfully demand of our Senators and our Representatives in Congress that they give the President their whole and hearty support by working and voting for the administration's army bill in whatever form presented.

"Resolved, That a copy of these resolutions be forwarded to our Senators and Representatives in Washington and a copy handed to press of this city.

"Respectfully submitted,

"JORDAN S. THOMAS, Chairman;

"J. FRANK WILKES,

"JOHN A. PARKER,

"T. W. WADE,

"ARTHUR J. DRAPER,

"H. D. DUCKWORTH,

"HAROLD S. HALL,

"E. N. FARRIS,

"JOHN W. WALKER,

"REV. DR. MCCOBBEY (Colored)."

T. L. KIRKPATRICK, Mayor.

The Cotton Movement.

In his report of April 20 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 263 days of season was 11,503,587 bales, an increase over the same period last year of 394,060 bales. The exports were 4,533,320 bales, an increase of 249,136 bales. The takings were, by Northern spinners, 2,265,616 bales, a decrease of 234,296 bales; by Southern spinners, 3,595,647 bales, an increase of 292,766 bales.

The Fertilizer Industry As Viewed by Fertilizer Men

Fertilizer Situation Considered as Critical.

Norfolk, Va., April 19.

Editor *Manufacturers Record*:

I am in receipt of yours of the 18th inst., and in reply beg to say that I consider the situation in this country with reference to fertilizer very critical.

All commercial fertilizers have as their base acidulated rock, that is, either Tennessee or Florida phosphate rock treated with sulphuric acid, which produces what is known as acid phosphate. Most of the sulphuric acid made in this country is produced from pyrites, 75 per cent. of which is imported from Spain. The importations last year were approximately 1,250,000 tons. At the present time it is almost impossible to have this material brought over owing to the scarcity of vessels, due to the activities of the submarines, and unless some arrangements are made by our Government by which these bottoms can be secured to bring over this material there will be an enormous shortage in fertilizers for the fall wheat crop and also for next spring's crops.

There is, of course, a large amount of sulphur produced in Texas and Louisiana, but it would be impossible to supply this shortage from this source or to increase the production of domestic pyrites sufficiently to take care of the situation. Therefore, the matter is squarely up to the Government to do something, if possible, to help the present situation.

In regard to other fertilizing materials, while, of course, importations of potash have been stopped, yet the production in this country has grown to be a considerable factor and is still increasing.

As to nitrogen, we are not dependent on any one source for this for fertilizing purposes. The principal source, of course, is sulphate of ammonia, which is produced from the coke ovens, the production of which has grown enormously in the last three years, and there are also other by-products which go to supply the demand. Nitrate of soda is one of the sources of nitrogen, but is not so important a factor as sulphate of ammonia.

Of course, all of these materials have advanced tremendously owing to the high ocean freights on nitrate of soda and the embargo on the importation of sulphate of ammonia from Europe, which has always supplied a very large quantity.

C. F. BURROUGHS,
Vice-President.

The Fertilizer, Nitrate and Sulphuric Acid Situation as Viewed by President Bowker.

THE NATIONAL FERTILIZER ASSOCIATION.

New York, N. Y., April 21.

Editor *Manufacturers Record*:

In reference to the sulphur situation, would say that there is some domestic production of pyrites, which undoubtedly can be increased to some extent. Domestic brimstone supplies can also undoubtedly be increased, but for many reasons it is extremely doubtful if the increase in the production of both of these sources of sulphur will anywhere near take care of the sulphur heretofore obtained from Spain. According to Government figures, Spain has been supplying us with about 1,250,000 tons of pyrites per annum, and since February 1 this source of supply has been substantially cut off owing to inability to obtain vessels in which to move it. Unless the Government can bring pressure to bear in various directions to obtain vessels, this country will unquestionably suffer a serious shortage in sulphuric acid, which, in turn, will mean a shortage in the production of acid phosphate and in the production of complete fertilizers. This is a serious question, directly affecting the food-supply problem.

At the request of the Department of the Interior the National Fertilizer Association is collecting figures at the present time on the pyrites, brimstone and acid-phosphate situation, which in due course will be brought to the attention of that Department and also to the attention of such other Departments or agencies as can be of assistance in helping to solve the sulphur problem.

There is, of course, a possibility that the supply of nitrate of soda may be shut off or greatly curtailed, but at present writing this particular situation is not causing us nearly as much concern as the sulphur situation.

We are quite at variance with your view that it is "vitally important to the safety of the nation in the matter of foodstuffs for itself and in order to supply the Allies that the proposed Government plant or plants for producing nitrates from the atmosphere shall be built as quickly as possible."

There is sufficient nitrogen going to waste now in the

coking of coal to take care of our nitrogen requirements were it all turned into sulphate of ammonia. Furthermore, there is the fact that a Government nitrate plant could not be completed for from two to three years, and by that time the whole nitrogen situation will probably have materially changed for the better. Finally, as a general proposition, we are firmly of the opinion that the Government can devote its energies far more profitably in directions other than by entering into purely manufacturing and commercial fields.

HORACE BOWKER,
President.

[The *MANUFACTURERS RECORD* does not at all agree with the statements made by Mr. Bowker in regard to the building of a nitrate plant by the Government. Moreover, his statement to the effect that a Government nitrate plant could not be completed in less than two to three years and by that time "the whole nitrogen situation will probably have materially changed for the better" shows the same short-sighted policy which Mr. Bowker displayed two weeks ago when he issued a strong condemnation of the utilization of back yards for growing vegetables. The position that Mr. Bowker took in that was directly at variance with the call of President Wilson, Secretary Houston and many others, and was just about as unwise as the position that he now takes regarding the building of a nitrate plant by the Government. His position, moreover, is short-sighted in that he takes the ground that within two to three years the nitrogen situation may be changed for the better, and therefore there is no need for action. Suppose Germany had taken that position at the beginning of the war and had decided that it would not increase its nitrate output. If it had been so unwise and short-sighted, Germany would long ago have collapsed.

Neither Mr. Bowker nor anyone else knows whether the nitrate situation will be less acute or infinitely more acute two or three years hence than it is now. And it is scarcely conceivable that an intelligent Government would act on the plan suggested by Mr. Bowker, namely, a plan to do nothing in getting ready to meet future contingencies.—Editor *MANUFACTURERS RECORD*.]

Feels That Government Must Safeguard Fertilizer Industry.

Baltimore, Md., April 20.

Editor *Manufacturers Record*:

In reply to your letter of the 19th inst., asking us just how the present upset conditions reflect on the fertilizer industry, would say we feel that, as a large portion of the world is today depending on us for its food supply, our Government should take prompt steps to see that the fertilizer manufacturers are able to obtain in an unrestricted way the various materials entering into the make-up of fertilizers. We feel that vessels should be supplied, by the Government if necessary, for the bringing of pyrites from Spain and of crude rock from Florida.

It is true that brimstone can be used instead of pyrites for making sulphuric acid, but brimstone is so much more expensive that we feel that every possible effort should be put out to have pyrites brought to this country.

In this connection we might say that should it develop that the insurance companies endeavor to charge prohibitive rates for war-risk insurance, our Government should come to the rescue, as England has done, and take over the question of insurance entirely, in which event we believe much lower rates would be made, which would help greatly to clear up the situation.

We are not posted as to the supply of brimstone, and are not in a position to say whether the output of the plants in Texas and Louisiana can be increased to a sufficient extent to supply the demand should we be unable to procure vessels to freight pyrites. As we said above, we believe that a strenuous effort should be made to secure pyrites, because of the fact that it is cheaper.

We are not inclined to believe that the supply of nitrate of soda from Chile will be cut off, although this

business may be somewhat affected if it develops that Germany can carry on a successful submarine campaign in our waters; but even in this event nitrate of soda could be brought up the West coast and sent by rail to the various parts of this country. This, of course, would be more expensive, but possibly not more so than the increased water freights and war-risk insurance would amount to, especially if any great damage is done by the submarines.

We are heartily in accord with the idea of having the Government build a plant or plants for the producing of atmospheric nitrogen, for in this way we feel that our country could be put on an absolutely independent basis as far as nitrates are concerned.

In addition to the above, we believe that the Government can greatly help the present situation by exercising a strict supervision of the various transportation companies, both rail and water, to see that the incoming ingredients and the outgoing fertilizers are moved with all possible despatch, so that the farmer may be helped and not hampered in the growing of crops, which are so much needed at this time.

THE HUBBARD FERTILIZER CO.,

W. P. Summers, Treas. and Genl. Mgr.

[Mr. Summers makes some good points, but suppose Chile, for instance, should become engaged in war and refused to permit the export of nitrate, or suppose submarines should make shipments from Chile impossible, where would we then be?—Editor *MANUFACTURERS RECORD*.]

Food Preservation Essential, as Well as Food Production.

Palatka, Fla., April 21—[Special.]—James R. Murphy of New York and Palatka, one of the delegates to the Cut-Over Land Conference of the South, held in New Orleans last week, on his return to Palatka last Monday went before the Board of County Commissioners and in a strong speech, in which he told of the New Orleans conference, urged the board to appropriate a fund to carry on a vigorous campaign for greater food production in Putnam county. Representatives of the Palatka papers were present, and agreed to give very low rates for advertising space and to aid liberally with space in their news columns to make the campaign a success. The board voted a substantial sum as an initial contribution, and requested Mr. Murphy to take charge of the campaign, in connection with L. Cantrell, the County Agricultural Agent.

Mr. Murphy is vice-president of the Associated Advertising Clubs of Florida, and has the full co-operation of the Palatka Club in conducting the campaign. He has also put his entire office force at the service of the committee, and is heading a personal canvass of the entire county, for which meetings have been called where it is convenient for the farmers to gather.

Care is being taken to instruct the farmers to grow staple crops and such fruits and vegetables as can be canned or preserved. It is realized that there is danger of great waste and discouragement to follow if perishable crops are raised that cannot be marketed successfully. The question of securing sufficient cans to meet the demands of the county is a serious one, and this again makes it all-important that the greater food campaign be conducted with discriminating care.

Through A. S. Willard, cashier of the Putnam National Bank, former president of the Bankers' Association of Florida, Miss Josephine Sippell, County Demonstration Agent of Home Economics, has secured an advance of funds without interest to purchase 20,000 cans for the girls' canning clubs. The banks extending this accommodation are the Putnam National, the State Bank of Palatka and the East Florida Savings and Trust Co. These banks are also advancing money through L. Cantrell, County Demonstration Agent, for the purchase of pigs for the pig club boys. They have given assurances to the committee that all responsible farmers will get accommodations to meet their requirements.

E. A. McGill, W. T. Temple, G. F. Thomas and associates, Chattanooga, Tenn., have incorporated the Mountain City Knitting Co. to build a mill for manufacturing hosiery; capital \$15,000.

Stimulus to Good Roads Building Expected from New State Laws

GREATER MILEAGE AS WELL AS IMPROVED CHARACTER OF IMPROVEMENTS COUNTED ON AS RESULT OF CONSTRUCTIVE ROAD LEGISLATION PASSED BY THE 1917 GENERAL ASSEMBLY OF NORTH CAROLINA.

By DR. JOSEPH HYDE PRATT, Chapel Hill, N. C.

[The best results in good roads work can only come through the enactment of State laws that will provide for the construction and maintenance of State and county highways along well-defined and comprehensive lines.

The North Carolina Legislature has recently passed some laws governing State highway construction and maintenance that have attracted wide attention. Believing that the main features of these laws would be interesting to other Southern States, the Manufacturers Record asked Dr. Joseph Hyde Pratt to prepare an article outlining the features of the North Carolina law, which is presented herewith. In it Dr. Pratt states that as a result of this legislation North Carolina was never in as good a condition for carrying on its road work as now, and it is confidently expected that greater progress will be made in both mileage and character of roads built than ever before in the history of the State.—Editor Manufacturers Record.]

The 1917 General Assembly of North Carolina passed more new and constructive road legislation than has perhaps ever been passed by any State at any one time. One entirely new feature in road legislation that stands out very prominently is the Clarke act, which authorizes the State to lend its credit to the counties in obtaining revenue with which to build good roads. Under certain conditions, counties that have issued bonds for road construction may turn these bonds over to the State treasurer, who holds these as collateral, issuing and selling an equal amount of State bonds and turning over to the counties the proceeds from the sale of the State bonds. The county bonds bear 5 per cent. interest, and the counties pay this interest each year to the State treasurer, who holds the county bonds. He uses enough of this amount to pay, when due, the 4 per cent. interest on the outstanding State bonds, and uses the balance, which is equal to 1 per cent. of the bond issue, as a sinking fund with which to pay off the State bonds when they become due at the end of 41 years, the life of the State and county bonds. When the State bonds are paid off the corresponding county bond issue is cancelled and returned to the county. Thus by this arrangement the county only has to pay the interest charge on the bond during the life of the bond, and the State looks after the payment of the principal of the bonds. This act has already caused several counties to call for road bond elections for May 8, 1917, and it is confidently believed that many more counties will take advantage of this act, as the elimination of the uncertain feature of a bond issue, which is providing a sinking fund, makes the road bond issue much more attractive and practicable to many people.

State-wide County Road Law.

North Carolina finally has a general State-wide road law applicable to every county in the State, and this law has several new features relating to road construction. This act makes provisions so that it is possible for counties to issue bonds or levy a special tax for road construction, either by townships or by county. The county, however, is first given an opportunity to make the county the unit in road work, but if this is not done, any township in the county can proceed to issue bonds or have a special tax levied. The act also provides for the appointment of county road commissions, who shall have full charge of the road work of a county or township. Whenever, in any county, township or road district conditions exist in connection with the location, construction, reconstruction, maintenance or repair of the roads so that the funds available are not sufficient to meet the conditions, then the county road commission or other commission having charge of the road work is authorized to apply to the board of county commissioners to appropriate from the general fund of the county or issue short-time notes or bonds in sufficient amount to carry out the work that it is considered necessary to do.

Another splendid section of this act is that counties or townships or road districts issuing bonds for road construction must, through the board of county commissioners, levy each year a special tax sufficient to raise

an amount equal to not less than 1 nor more than 4 per cent. of the par value of the bonds issued for road work, which amount thus raised shall be used for the purpose of maintaining the roads built through the expenditure of the funds raised by the bond issue or from a special road tax.

This State-wide act also makes provisions for obtaining rights of way so that the actual road work cannot be interrupted by any right-of-way dispute. If the road commission and the owners of the land through which the road is to be built cannot agree regarding the right of way, the road commission is authorized to go ahead with the road and then, 60 days after said highway is completed, a board shall be appointed who shall go upon the land and assess both the damages and benefits due to the construction of the road, and if the benefits shall exceed the damages, then the amount of such excess of benefits shall be assessed against the landowner and shall constitute a lien upon the land adjoining the road and shall be collected by the sheriff in the same way as property taxes. This act should prevent the exorbitant payments that have been made by many counties for rights of way, and will prevent the landowner from interfering with the construction of a public road.

The act also provides that a county road commission may expend a portion of the county road funds for road work within the limits of any incorporated town within the county, township or road district having a population of less than 2500. This is in accordance with the Federal Aid Road Act, which permits of the Federal-aid fund being spent in building roads in the small incorporated towns. This will make it possible to build the links of through highways in these incorporated towns which in many instances at the present time have not been built and constitute an extremely bad section of road in otherwise long distances of good roads.

Where certain communities wish to construct good roads and cannot obtain the full co-operation of the county or township, it is possible for these communities to organize road districts and have the same privilege of issuing bonds or having a special tax levied as the counties and townships have.

The law also provides for the establishment of special road districts composed of the land lying a certain distance on either side of a certain road that the people living along said road desire to improve. In the formation of these special road districts, which is done upon a petition of 60 per cent. of the land area that will comprise the district along said road, the county road commission is authorized and directed to construct such road as is desired by the petitioners, charging against the landowners not over two-thirds of the cost and expense of constructing said road, the other third to be paid by the county.

This act makes it possible for the counties to obtain revenue with which to build roads; provides that competent engineers shall be employed to supervise the location and construction of the roads; provides, further, that a sufficient sum shall be raised by a special tax with which to maintain the roads built by the bond issues, and insures rights of way for the roads and prevents the paying of any exorbitant price for such rights of way.

Maintenance of Highways.

The need of the maintenance of the highways of North Carolina was fully appreciated by the Governor and General Assembly, and this took definite shape in the passage of the act turning over to the State Highway Commission the automobile tax, to be expended by the State Highway Commission in the maintenance of the main highways of the State. The passage of this maintenance act makes it possible for the State Highway Commission to guarantee to the Secretary of Agriculture the maintenance of the highways in North Carolina that will be built with Federal aid.

Erection of Guide Posts at Crossroads.

A bill relating to highways that is of especial interest to traveling men is the one that requires the boards of county commissioners or road commissions of the several counties to cause to be erected within the next six months guide posts at the various crossings and forks of the public highways of each county. These guide posts are to have the proper inscriptions or devices which will enable the traveler to know to what place the road leads and the distance to such place. It is also made a misdemeanor for any body, firm or corporation to erect signboards along the public highways in imitation of railroad crossing warning signs.

Tennessee-North Carolina-Georgia Scenic Highway.

Another act relating to highways passed by the General Assembly of 1917 was one authorizing the construction and maintenance of the Tennessee-North Carolina-Georgia Scenic Highway, a proposed link of the Dixie Highway. This link passes through Swain and Macon counties, North Carolina, and the State designates this as a State highway and authorizes the appointment of a board of trustees from these two counties to take up actively the providing of revenue for its construction, and authorizes the counties, townships and cities through which the highway passes to make, under certain conditions, contributions out of the general treasury for the construction of this highway.

Rural Engineering.

The State Highway Commission is directed to take up another branch of engineering work in connection with the development of water-powers and the installation of rural telephone lines. This act is to assist in providing for better and more comfortable living conditions in the rural sections of North Carolina by helping to provide water supply and electric power and electric lights for rural communities. The State Highway Commission is to investigate water-powers and prepare plans for the development and installation of such apparatus as may be necessary in developing power and lights for rural homes and communities.

The commission is also authorized and directed to encourage and assist in the establishment of rural telephone lines.

Summary.

By the passage of the laws referred to above, the various subdivisions of the State of North Carolina are in a position to procure the revenue necessary for the construction of good roads, and the people voting the bonds will be assured that the roads built by means of the bond issues will be maintained; that the money will be spent economically under the supervision of competent road engineers, and that little or none of the money will be paid for rights of way. This removes several of the objections that formerly existed in the minds of many people in regard to the issuing of bonds for road purposes, and have been the cause of the defeat of many bond issues. The State was never in as good a condition for carrying on its road work as it is at the present time, and it is confidently expected that greater progress will be made in both mileage and character of roads built during the next year than ever before in the history of the State.

Tungsten and Molybdenum Wire.

COMPANIA ANONIMA DE MAGUINARIA INDUSTRIAL, Serrano No. 1, Madrid, Spain.

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American Soldiers Called to Defend the American Home, and the Religious Aspect of the Situation.

[To the millions of Americans who view with dread the dangers that our soldiers and sailors must face, an Easter sermon by the Rev. Dr. M. Ashby Jones of Augusta, Ga., will be comforting as showing why in defense of the real "home" these men go forth "to fight for nought which can be measured or marketed in the commerce of the world. If they die, they shall die for the deathless values of the human spirit—fighting for the home land of the souls of men." Because every man and woman in America feels keenly the awful tragedy of the world, the Manufacturers Record is justified in turning its readers' thoughts to this religious side of the mighty problems of the hour.—Editor Manufacturers Record.]

I find the inspiration for some things I want to say to you this morning in the words of Jesus recorded in the second and third verses of the fourteenth chapter of John's Gospel: "In my Father's house are many mansions. * * * I go to prepare a place for you, I come again and will receive you unto myself; that where I am there ye may be also."

The word "mansion" here has always seemed to me to be a most unfortunate translation. It smacks of pomp and circumstance. Most of us would feel strange and out of place in a "mansion." Few would be "at home" in such a house. So that it manages to miss the very simple, but very beautiful idea which He had. What He did say was "in my Father's home there are many homes." And it is this home idea which challenges our interest this morning. It is a primary and universal idea. It was not evolved in the process of human progress, but itself gave the push which started humanity forward. It is as original as the nest and the nursery. It is not the product of civilization, but civilization is the lengthening shadow of the home, within whose sheltering protection the precious possessions of the race have been preserved. So when God wanted to translate himself into terms of human understanding, in order to reach all men, he had to speak a universal tongue, so he chose the home vocabulary. A father "so loved a world, that he gave His son." And in that beautiful Christmas story, when the shepherds, all dazed and mystified by the music and the light from heaven, hurried to the stable at Bethlehem, they found the meaning of the music and the light in that little group of father and mother and baby.

Here is religion in the simplest and yet the most sacred language ever spoken by men. And we may be sure that any religion which cannot be translated into terms of father and mother and child can never gain human faith nor redeem human hearts. It was so natural, then, that Jesus in this last talk with his disciples should put His words of comfort into the language of the home. He is going away, but in order that his departure into the unknown shall be robbed of its uncanny terror and be made warm and familiar in their thought, he is saying, "I am going home, and my home shall be your home also."

I am sure that to any enlightened people the fear of death is not the fear of punishment on the other side of the experience. It is primarily the severance of the sacred relations on this side. Nowhere has the pall of this shadow fallen with such deep darkness as upon the homes of the world. Its pathos finds expression in the broken family circles with their empty chairs around the hearthstones. "Breaking up housekeeping" has made so much of the minor music of the world. It is the ending of the home life which has brought forth most of the tears. And now Jesus brings this message to the world. Death does not put an end to the home. The home idea is immortal. It is not only the alpha but the omega of human life. So, as we turn our faces toward that unknown experience beyond the grave and try to imagine some kind of a heaven, we are told that it is not to be some strange, unnatural ghost-like existence, but that it is to be home-like.

War the Enemy of the Home.

And it seems to me that this message is pre-eminently appropriate to us today, when we can almost hear the throb of the war drum with its compelling roll-call to our sons. The terrible thing about war has ever been its separations. It is essentially the enemy of the home. This is the supreme indictment which civilization brings against the author of any war, that a callous carelessness of human hearts allows him to destroy the homes

of men in the pursuit of a selfish ambition. And the final and unanswerable justification of any people who make war is that they do it in the defense of the home.

Probably when we clearly understand the meaning of home it will prove to be the only justification for war. But, first of all, we must understand that a home is not a material place at all. True, a house may be a home in a symbol sense, because man has that miracle gift of baptizing things with his spirit, transforming the secular into the sacred until the very ground on which he stands is holy. So he may take a house and permeate it with the passions and purposes, the sentiments and traditions of his spirit, and thus make a home.

But, nevertheless, it is the spirit and not the house in which he really dwells. For a man lives where he thinks. Not where his feet press, but where his soul breathes. He dwells within the radius of his convictions, his sentiments, his aspirations and his affections. The home life is the mystic circle within which we think together, feel together, want together and love together. The fires upon the family altars of the world are the spiritual passions which melt souls into a consciousness of kinship.

The Modern Pacifist.

To me, your modern pacifist is the grossest and crudest materialist. He, too, would defend the homes of America, but not until the invader's foot has pressed the dirt of our land, and his guns have blasted our houses into ruin. But he seems incapable of seeing that if you destroy our common convictions of liberty and of loyalty that though there were a continent of land and lumber left with which to build houses, there would be nothing left with which to build homes. You could make places, luxurious places, to house and feed the bodies of men, but there would be no place where the souls of men could dwell and be nourished.

America, of course, is our homeland. But the time has come when we must protest with all the passion of patriotism against the materialism which would bound and limit America by oceans and lakes and gulfs. That physical conception which identifies home love with our harbors but excludes it from our honor, which limits it to our land and will not let it live in our liberties, would bleed patriotism into a pale, pulseless anxiety for the preservation of our property.

Germans in Belgium.

When Germany invaded Belgium, her armies had to march through a breach in German honor, within whose pledged protection a peaceful people had their homes in confidence. When German torpedoes sent unarmed American men, women and children to an unwarned death, the ideas of honor, the high and holy standards of Christian chivalry and the aspirations of spiritual freedom, within whose psychic environment the soul of America had been housed for a century and a half, were ruthlessly assaulted. Must we question at this late hour in our history where the spirit of America lives?

I doubt whether the land and the houses of this nation are in any immediate danger, but I am profoundly convinced that the only place where the soul of Americans dwell in honor and in freedom of spiritual development is endangered and that the starry light and flaunting folds of our flag summon the sons of our nation to defend the home of America.

In a very fundamental sense our contention is for the spirituality of life itself. And only faith in the spiritual and the immortal values can ever rob war of its horrors and extract the sting from death. Death is not the most terrible experience because only bodies can

die, while personality with its thought and sentiment, ideals and loves, survives the shock of separation from material things and lives on. Death is bad enough, and I would not try to "whitewash" the experience. It is a shocking separation. We have so identified the lives of our loved ones with their bodies, and become so dependent upon the physical functions of sight and sound and touch in our associations, that when they pass out of sight and hearing the silence and the darkness are overwhelming. We are accustomed by daily experience to seeing ideas change their bodies and find for themselves multiplied variety of forms without any essential loss. The idea motion passes quickly from heat to light, from solid to liquid and then to gas, disappearing from our most delicate apprehension. Yet no pulse of power is lost from the universe. The dingy seed bursts into blooming beauty. The worm wakes from its crystal cradle to wondrous wings. The music of the moon dreams within its sheltering egg until in the fullness of its time a nightingale pours forth its song to the stars. How many of those primary ideas of human thought which have found expression in art, music, literature, government and religion in a vast variety of forms have survived the shock of change and the destruction of their forms and are vital forces in the life of the world today!

So there is nothing alien to reason in the faith that these convictions, sentiments, aspirations and affections which make up one's personality shall survive the shock of separation from this body and pass into some undreamed-of life. It is a faith that the form is not essential to life, but simply life's instrument, life's servant. Paderewski's piano is destroyed. But Paderewski lives, and he shall have a new instrument through which to translate the harmonies of his soul. The body may be destroyed, but the soul lives and shall yet find a finer form for a fuller and richer expression of the undeveloped faculties and forces of its being.

And still the bereaved one stands upon this side of the grave with straining eyes and sensitive ears, asking, "Where have my loved ones gone?" They have gone to a realm beyond the reach of our experience, and imagination itself halts helpless. Yet Christianity has this answer of infinite comfort: They have gone to the home of Jesus. And Jesus does not live beyond the stars. There is no geography or astronomy of the spiritual world. He, too, lives where he thinks. Whatever else or wherever else heaven may be we may be sure that it is within the radius of the thought, the sympathy, the aspirations and the love of Jesus. And when I think of that life on earth—its all-inclusive sympathy and service—there comes to me no better description of His home than that it is the land of fatherhood, sonship and brotherhood. This indeed is the prepared home for the souls of men, and all who are without the consciousness of this divine idea are lost until they find it.

The Home Immortal.

So the message to human hearts this Easter morning is that the home, with all those sacred and priceless relationships which the idea includes, is immortal. The message of individual immortality is not enough. The moment we have received it, we eagerly question, "Yes, we shall live, but shall we live together—shall we know each other?" And this home idea of immortality answers "Yes." And the answer seems to me to be inevitable. If one is to be conscious of himself from the very nature of his personality he must be conscious of others. When one looks back upon his own life, how much of the lives of others has been woven into the web of his personality. Numberless people have combined to pour a subtle spiritual current of opinions, sentiments, ambitions and affections into his personality, and the consciousness of his obligations and loyalties so largely help to define the pathway of his conduct and the development of his character. Indeed, it is impossible to think of an individual man unrelated vitally to others. He is the sum total of his relationships to others. He is a son, a father, a brother, a neighbor, a friend. And all that goes to make up the really priceless possessions of his personality are included in his loyalties and his loves. If he is immortal, then these relationships must be immortal. For if these spiritual arteries which vitally connect and sustain the personalities of men were severed, souls would bleed to the death.

The Heavenly Home.

It is from this standpoint I love to read some of the poetical descriptions of the heavenly home. They are

figurative, of course, but some of them beautifully significant. One of my favorites is the picture of the golden streets. Streets are social. They link home to home, and heaven becomes a great community—a wondrous neighborhood. And all that is sweetest and best in that beloved idea is immortal, too. And from the doors of our homes we shall step into those streets—into the current of spiritual converse and commerce. And all that was best in thought, in sentiment and in purpose which bound us together here in high and holy enterprise shall find a full expression in the service of comradeship in the life over there.

I do not understand, nor am I pretending to explain, the apparent difficulties and mysteries involved in the resurrection of Jesus, but some essential revelations stand out with impressive significance. The body of Jesus was in some illusory, indefinable way changed by the Genth experience, so that his disciples did not readily recognize him. But Jesus himself was not changed. He came forth from the tomb with the same sympathies, the same loves and the same purposes which had gripped his mind and heart before Golgotha. In his last talk with his disciples before His death He had been saying to them "even as the Father hath sent Me, so I send you into the world." And when He comes forth from the grave the same passion for the conquest of a world possesses Him, and from the brow of Olivet He issues His last command, "Go ye into all the world and make disciples of all the nations."

Send Our Sons to War With Confidence.

No! Death does not change anything save the form. The same convictions, motives and aspirations which furnished the spiritual urge in this world pass into a larger area of activity where larger enterprises challenge them to more complete expression.

Now, with the meaning of this message in our minds and hearts, we want to face the supreme issues which challenge us as a nation today, and interpret them, if we can, in its light. We are about to send our sons into war. We must not, we would not if we could, dodge the fact. We send them forth to front death. As they die here, they shall live hereafter. That is the reason that the supremely important question is, Why do they fight? Far more important than what is in their hands is what is in their hearts. And I thank God that we may have the consciousness this morning that the war motive which this nation offers to every soldier heart—the why he is to fight—is in harmony with the heart of Christ.

We send them forth with hearts clean of any national greed for gain, and free of any racial hatred. We commission them to fight for nought which can be measured or marketed in the commerce of the world. If they die, they shall die for the deathless values of the human spirit—fighting for the home-land of the souls of men, the land of fatherhood and brotherhood. And if they must die, they shall live again with that passion for brotherhood radiantly regal in the resurrection life leading them to still more splendid enterprises in the spirit world. May we not hear the voice of the master calling to us as a nation today, "Follow Me?" Perchance he leads via Golgotha, but the Way of Golgotha leads to the Resurrection Victory.

Seawall to Be Built at Corpus Christi.

Corpus Christi, Tex. April 21—[Special.]—Mayor Roy Miller and associates in the City Council are taking immediate steps to carry out the important Bay Front Improvement.

At the last session of the Legislature a bill was passed and subsequently signed by Governor Ferguson, giving to the city of Corpus Christi ad valorem taxes of Neeces county for a period of 15 years for the purpose of building a seawall in front of the city. Mayor Miller advised the Council that under the present rates and valuations this will net the city \$38,000 per annum, which will be sufficient to care for a \$500,000 bond issue. A supplemental bond issue will also be necessary, and the legislative bill so provides.

A number of eminent engineers, including Major Johnston of the United States Army Engineers Corps, in charge of the Galveston district; David M. Picton of Rockport, who built the Aransas Pass jetties, and T. H. Crandall of Galveston, have volunteered to act in an advisory capacity with City Engineer Stevens in the preparation of the plans for the improvement.

Ten Weeks After

By CORNELIUS OLIVER LEE of the Florida Grower Staff, Tampa, Fla.

When the wind blew out of the cloud in early February, chilling and in some instances killing some of our beautiful oranges and other staple products, it struck some Aeolian harp left hanging on a sour lemon tree by a traveling knocker and gave forth the resonant discord that Florida was as dead as Methusalem's goat.

But a view of the situation, now that the weather has been behaving itself ever since, shows that while the funeral rites were properly prepared, there was no corpse to bury.

If we had gone over the calendar with a fine-toothed comb we couldn't have picked out a more inopportune time for our February freeze. The State was crammed with tourists. The South Florida fair and Gasparilla carnival were in progress, our railroads were busy and our real estate agents happy.

Then came the cold. In most cases it caught us unprepared. We refused to believe it would ever happen, and when it came we were slow to think it had happened. Then with that optimistic spirit which we absorb from our native sunshine we go up and said "forget it!" and promptly placed an order with our nurseryman to replace whatever trees were injured.

That all was 10 weeks ago.

Today we find that we were not only optimistic, but right.

True, some young groves were injured. Many of them were too far north for citrus development. Many were planted in exposed positions. Many were never properly tended to in a way that would make them resistant to cold—and almost every grove that was damaged, no matter where located, could have been saved by firing.

The writer has been over a great deal of the citrus country since the freeze. He has talked with hundreds of citrus growers and comes in daily contact with the best informed citrus experts in the country, and he has only this to say, that the man who thinks the Florida citrus industry was even seriously injured is simply composing another chapter to be added to the published lies of Baron Munchausen.

In the far southern section of the State not a leaf was turned, and in places as far north along the west coast as Tarpon Springs groves still have oranges on them as sweet as honey. Driving in a machine 15 miles north of Tampa last week we came to a grove loaded with oranges and grapefruit. There were four prospective land buyers in the car. They stopped and sampled the luscious globes. After a few minutes, wiping the juice from his lips, one of them said, "Who said there was a freeze here?" and in two days he bought \$12,000 worth of land and contracted for a large citrus grove.

There is no denying that many young trees were killed and many more injured, but the bloom that has set so far, together with what may be expected in June, both give promise that the crop for next year will hardly fall short of normal. In fact, one leading authority on the subject remarked a few days ago that the potash situation gave him more cause for worry than the cold snap.

Florida is one of the few immortal names that were not born to die. Her citizens are super-optimists plus. They have seen the improbable become the fact in so many instances that they possess the faith that will remove mountains.

Go through any of the well-tended groves today and you will not believe there ever was the low temperature of February. You feel disposed to discredit the thermometer and think that the reports of the cold weather were tales of fearsome tourists made out of the whole cloth. One thing is sure. If the last cold spell did not harm the well-tended grove no future one ever will.

Last week the writer saw the famous 400-acre grapefruit grove of the Atwood Company near Manatee and failed to perceive even a frosted tip of bloom wood.

A Northern visitor will exaggerate the damage done every time. Today he beholds the beautiful tree with foliage gleaming in all shades of green. The next day he sees the limp frozen foliage looking for all the world like forksful of boiled spinach festooned on the otherwise bare branches, and then when the sun comes out and the leaves dry up and rattle with every breath of air he cannot see even good kindling wood for that young tree. But there are thousands of trees that looked like that in the early part of February that do not show

anything today except new foliage and the prospects of a normal crop for next year's pickers.

Florida is not even sleeping. Ask the men who thought in February that their groves were injured would they sell now. Ask the fertilizer people if they are booking orders. Inquire of the nurserymen what they think about the situation. Ask the members and officials of the citrus exchange. Ask anyone who knows the real situation and see what the answer will be. It will be the same in every case. "Florida is all right. The freeze killed more bugs than trees, and will help to make our groves bigger and better and stronger than ever before. And hereafter we will all be prepared to fire!"

Our State was discovered by Ponce de Leon on an Easter Sunday. And in the march of centuries we have never lost sight of the lessons taught by that day of Resurrection. And Florida will rise from whatever loss she encountered in February, 1917, to greater heights of commercial prosperity than her most ardent boosters have ever dreamed!

BIG SHIPBUILDING OPERATIONS AT JACKSONVILLE.

Important Contracts Placed for Steel and Wooden Ships.

Jacksonville, Fla., April 21—[Special.]—Returning from Washington Thursday, after having been in conference with Gen. George Goethals regarding the contract for the construction of twelve 3000-ton wooden steamers, C. P. Hillyer of the firm of Hillyer-Sperring-Dunn Company of this city stated that his concern was the first to receive their specifications from the Navy Department for the building of the vessels and that work on same will be rushed to completion.

According to Mr. Hillyer, the 12 ships will be constructed simultaneously, and a crew of 1500 men will be required to finish the boats within the specified time of nine months from date. Regarding the scarcity of laborers for this class of work, Mr. Hillyer declares that his firm has now 350 men at work on the three three-masted schooners nearing completion, and that they do not have any anxiety over the alleged shortage of men. "We have secured a number of men laborers who were formerly occupied as bridge builders, and within a short time, under the instruction and supervision of our more experienced shipbuilders, will become proficient to a great degree in this work," stated Mr. Hillyer. As fast as the boats are completed the Government will install the necessary machinery in them.

The other shipbuilding plants in Jacksonville are just as busy as the firm of Hillyer-Sperring-Dunn, G. W. Baxter & Co. having now the keels of three 2200-ton schooners already laid and work being rushed as fast as possible to complete their contract by August 1. In speaking of the activities along these lines, R. M. Douglass, superintendent of the plant, states that his company has 225 trained mechanics at work on the vessels, and is finding no trouble in securing good labor, who quickly learn the shipbuilding trade under expert instruction. "We have other contracts for several more vessels of the four-masted schooner type after we complete those now under way," stated Mr. Douglass, "and expect to complete at least nine 2200-ton ships this year. The vessels we are now building are for the coastwise trade, according to the information received from the owners, and will cost approximately \$300,000 each."

The Cummer Lumber Co., which several years ago quit the shipbuilding field and confined its activities to the lumber business exclusively, has taken a contract from the Government for three 1000-ton vessels, which it is understood will be fitted with auxiliary engines. The keels for one of the ships is already laid, and as fast as possible the others will follow.

The firm of Merrill-Stevens has not taken any contracts for wooden ships, having now contracts for five 5000-ton steel vessels, which will be constructed as fast as possible, and in order to take care of these orders the company recently increased its capital, and is planning to build another huge drydock across the St. Johns River from the present plant.

TO RAISE GREATER FOOD CROPS IN NORTH CAROLINA.

State Departments and State Officials, Bankers and Individuals Co-operating in the Movement.

Raleigh, N. C., April 20—[Special.]—North Carolina is going in with spirit to grow food crops. Only one cynic has been heard from, and he said that all the State would be a garden, and vegetables, etc., would be a drug on the market. But when, thanks to the numerous non-producers, the prices of "turnip greens" in Raleigh, for example, went as high as \$1 a peck a month ago it was evident to the stomach and the mind at the same time that something was radically wrong and that North Carolina had sadly deteriorated since 1860, for in the latter year she was a seller of all foods except sugar (and in the mountain region made up a lot of that) and a buyer of none. But the State, like the nation, is to be remade by this war; sobered, made industrious, chastened, made wiser and better. The writer once ready a story of "The Man Who Found Himself." North Carolina is starting in now to "find" herself.

North Carolina has a State prison farm of 7000 acres. The secretary to the prison directors said to me a few days ago: "We have 400 acres in winter wheat on the farm, and we will plant 5000 acres in food crops, including corn, peanuts, etc. When the wheat is cut on the 400 acres that area will also be planted in food crops. We will plant only 1000 of the 7000 acres in cotton."

There are in the farm of the North Carolina College of Agriculture and Engineering 250 acres, of which 50 acres are in the pasture for the large dairy herd and 200 in food crops. On the State's six test farms food crops are largely grown, the experiments, of course, going on.

Governor Bickett said to the writer: "You may depend upon it that North Carolina will lead as far as food crops are concerned." The Governor is preaching this sort of preparedness, just as he is telling North Carolinians that they must not be "slackers" in any capacity. No Governor has had a plainer view of the needs this momentous year, and no one can say them with more vigor, impressiveness and accuracy.

One of the leading banks in Raleigh is giving to the hundreds of lads in the boys' corn clubs in Wake county the best variety of corn free of charge, and the boys are starting in to smash their best previous records. They are in charge of the farm demonstrator, who told the writer that this move would bring about the planting this season of 5000 acres in velvet beans.

Commissioner of Agriculture W. A. Graham is sending out on all department envelopes in blood-red letters this inscription: "Our country is at war. Every pound of non-perishable food produced, every pound of loss or waste prevented is a help." He is calling on the farmers to raise a supply of sorghum syrup, as one of the most economical of foods; to replant the area now in wheat and oats as soon as those crops are harvested, as good corn can be raised in nearly all parts of the State if planted as late as the last week in June; the sweet potato crop should be greatly increased, and after the plants are set out they can be cut for new plants and the potatoes thus grown will be equally as good, if not better, than those from the original plants; a second crop of Irish potatoes can be easily produced in most sections, and good potatoes can be grown from the first crop as late as the last of May; Essex rape should be freely planted for salad, as it will yield a crop in shorter time than any other salad plant, equal to mustard or turnips, as "greens," and pleasant to the taste; upland rice can be grown in the eastern area, where some years ago a large quantity was produced.

Commissioner Graham, finding the price of tin and glass containers to be so high, urges the manufacture of clay jugs and other containers. There are yet potteries in the section west of Raleigh, and 50 years ago there were scores of them which turned out practically all the jugs and crocks used. He is sending special workers to teach gardening and proper cooking in the cotton-mill villages.

The commissioner has written several of the North Carolina members of Congress, urging them to see to it that in the provision for plenary power by the United States Government over the railways it is seen to that such things as components of fertilizers are hastened

to their destinations. He cited the case of a phosphate mill near Raleigh which for three months had been waiting for a supply of cyanamid shipped from Chicago, but which has failed to arrive in 120 days, absolutely shutting the factory off from manufacture. He says that fertilizers are vital to the growing of crops this year, when the United States must feed people at home and a large part of the ones outside.

FRED A. OLDS.

DYESTUFF INDUSTRIES CONSOLIDATE FOR FOREIGN COMPETITION.

\$20,000,000 Organization Formed to Include Some of America's Leading Dye-Making Firms.

For the purpose of creating a co-ordinated and well-balanced coal-tar dyestuffs and chemical industry, with complete facilities for manufacturing its products in the most efficient and practical manner, and with adequate capitalization, all combining to create an organization that with proper tariff protection can successfully meet foreign competition after the war, the National Aniline & Chemical Co., Inc., is being organized with a capital of \$20,000,000. Among the organizations and executives active in forming the new organization are J. F. and C. P. Hugo Schoellkopf of the Schoellkopf Aniline & Chemical Works; I. Frank Stone, president National Aniline & Chemical Co., and Dr. William Beckers of the W. Beckers Aniline & Chemical Works, and will control the entire works of the Schoellkopf Aniline & Chemical Works, Inc., of Buffalo, the W. Beckers Aniline & Chemical Works of Brooklyn, the Benzol Products Co. of Marcus Hook, Pa., and such sections of the plants of the Semet-Solvay Company of Syracuse, and the Barrett Company works at Frankfort, Pa.; the General Chemical Co. of New York, and other factories, which produce those coal-tar intermediates entering into the manufacture of the finished colors.

It is pointed out that this amalgamated company does not create, in the accepted sense, a trust or monopoly for the control of prices and production, but it represents the bringing together of a well-rounded organization having adequate working capital, ample resources of raw materials supply, with a group of various plants to manufacture dyestuffs and chemicals from the raw materials to the finished products, and well-developed chemical and research laboratories, all forming a co-ordinated unit.

An indication of the complete and well-rounded facilities of the new company is shown by the statement that the Schoellkopf and Beckers companies make the dyestuffs, the Benzol Products Company manufactures aniline oils, salts and various intermediates, and the Semet-Solvay, Barrett and General Chemical companies furnish the necessary by-products and intermediates from coal and coke manufacture.

The Schoellkopf Aniline & Chemical Co. has developed the largest industry in the country in the manufacture of coal-tar dyestuffs. This company was in operation before the war, using German intermediates, and at that time produced about 10 per cent. of the colors used in this country. When the war cut off the supply of German intermediates, as well as German dyestuffs, the Schoellkopf Company started not only to manufacture its dyestuffs from intermediates made in this country, but to materially enlarge and expand its business, with the result that it is now turning out 10 times the amount of products made before the war began.

The W. Beckers Aniline & Chemical Works was started shortly before the war, but was reorganized in 1915, and has since developed the second largest dyestuff-making plant in the country. The products of these two plants are developed for different uses—those of the Schoellkopf Company being for the cotton, silk, leather, paper trade, etc., and those of the Beckers Company more particularly for the woolen trade. It is said that the two companies produce 75 per cent. of the aniline colors made in this country, and about 75 per cent. of the total output of sulphur black.

In taking over the sections of the General Chemical, Semet-Solvay and Barrett companies that supply raw materials necessary for the manufacture of intermediates, it is stated that no arrangements had been made with these three companies as to furnishing the supplies needed, but that the amalgamated company will

purchase its supply in the open market, and the three companies will continue to sell their materials to any other manufacturers.

It is stated that the main purpose behind this amalgamation was to provide a coal-tar dyestuff and chemical organization that would have a sound, permanent basis, both as to financial arrangements and adequate plant facilities, for the most efficient and successful production of dyestuffs and chemicals from the raw materials to the finished product, and to be able to so broaden the facilities of the plant that it could eventually make all of the varied colors needed by the industries of the country, and also be strong enough in productive effort and in financial backing to successfully cope with the keen foreign competition that is bound to follow the close of the war.

\$50,000,000 Steel and Shipbuilding Industry Proposed for Baltimore.

It is reported that plans are rapidly taking shape for the organization of a \$50,000,000 company to establish a large steel shipbuilding plant at Baltimore, and in connection with this a complete iron and steel-making plant to furnish the materials for building the vessels. It is said that through the co-operation of the commercial development department of the Baltimore & Ohio Railroad options have been secured on 1500 acres of land facing on the Patapsco River, just below Baltimore and opposite the Sparrows Point plant of the Bethlehem Steel Co. Some of this land, it is said, has already been purchased.

It is expected that details will be sufficiently advanced to permit the incorporation of the company within a week or ten days. Among those mentioned as active in organizing this new project are E. M. Newton of Atlantic City, N. J., and Baltimore, Md., and Bernard N. Baker of Baltimore.

Mississippi Campaign for Health Betterment.

Jackson, Miss., April 23—[Special.]—Plans have been completed for a unique State-wide health campaign, with its primary object the improvement in the vigor of Mississippians, so that they may make better farmers and better fighters during the present national crisis. The State Board of Health and the extension forces of the Mississippi Agricultural and Mechanical College and of the United States Department of Agriculture worked out the scheme. It contemplates a two-weeks' campaign in June in every county of the State. Stress will be laid upon cure and prevention of vitality-draining diseases, such as malaria and hookworm, and upon the necessity for a diet supplying all needed food elements. County farm demonstration agents and home economic agents will direct the county work. Meetings will be held in every community, with a county-wide rally at the county-seat.

Two Steamships Costing \$2,000,000.

Two large additional contracts for building steamships have been obtained by the Newport News (Va.) Shipbuilding & Drydock Co., the new ships to cost \$1,000,000 each. These vessels will each be 385 feet long, 30 feet deep, with 53-foot beam, and are designed for general cargo carriers. Their sea speed will be about 11½ knots per hour, and they are to be built for the Atlantic Gulf & West Indies Steamship Co. The Newport News plant is employing nearly 8000 men, with a weekly payroll of \$120,000, and it is now proceeding with its many large contracts heretofore announced, including \$87,000,000 worth of Government construction.

Canning Factory for Corpus Christi.

Corpus Christi, Tex., April 21—[Special.]—A modern canning plant of sufficient capacity to handle several thousand pounds of seafoods and vegetables daily is to be established here. J. B. Oatman, Victor Oatman and P. O. Cox recently organized the Corpus Christi Fish & Oyster Co. with a paid-in capital stock of \$25,000. The company will build a fireproof building and install machinery without delay. The payroll will approximate \$10,000 monthly.

DEVELOPING EASTERN ALABAMA ORES.

Increasing Activity in Iron Production Necessitates Increased Ore Output.

Active operation for the development of the Cambrian, or gray ores, in Talladega county, Alabama, on the property owned by the Alabama Ore & Iron Co., and also for developing the ore properties of the Columbiana Ore & Iron Co. near Columbiana, Ala., are to be pushed forward vigorously by the Baltimoreans who have for some years owned these properties. Mr. Douglas H. Gordon of Baltimore owns the majority of the stock of each of these companies.

The Alabama Ore & Iron Co. owns a large iron-ore acreage in Talladega county, known as the Heacock-Riser properties, on which thorough exploration work was carried out some years ago by Mr. Charles Catlett of Staunton and Dr. J. Marshall Grasty.

The gray ores of this property and of the adjoining property, owned by the Gray Iron Ore Co., according to experts, carry the largest percentage of potash of any iron ores known in the United States, and Mr. Catlett and Dr. Grasty regard these ores very highly, not only for their iron content, but for the available potash that may be saved as a by-product in ironmaking.

The development of the properties owned by the Alabama Ore & Iron Co. and the Columbiana Ore & Iron Co. should prove a very important factor in furnishing a large supply of iron ore at a time when the demand for ore is increasing more rapidly than the production. These operations should greatly strengthen the development of the iron industry of Eastern Alabama.

Some years ago Edwin C. Eckel, one of the best-known geologists of the country, in an article in the Iron Trade Review, discussing these gray ores of Talladega county, said:

"Taking only the better known portion of the range, it is probable that in this 10-mile section there are somewhat over 50,000,000 tons of ore at easily workable depths, i. e., above the 1500-foot level. About one-half of this total tonnage is graded above 45 per cent. metallic iron, the remainder ranging from 45 per cent. down to 35 per cent. A fair proportion of the total, say 5,000,000 tons, can probably be mined so as to grade 50 to 53 per cent. of iron." Dr. Eckel estimated that, figured to a depth of, say, 3000 feet, as in other districts, the quantity of available ore would run to over 100,000,000 tons.

In a report made about the same time by Dr. Grasty it was said:

"The gray ores of Alabama are higher in their content of iron than any other large ore deposit south of Lake Superior. They are strikingly similar to the Lake Superior ores, though in the matter of chemical composition they are higher than the former in silica and lower in content of iron. In physical appearance the ores from Lake Superior and the ores from the gray-ore district and the Columbiana district are frequently almost indistinguishable."

Of the Columbiana ore Dr. Grasty wrote:

"The Columbiana ore is a hard, red hematite, but its characteristic jointing is a great advantage resulting, as it does, in materially cheapening the cost of mining. The remarkable constancy of composition gives it an additional value. The red Cambrian ore of Columbiana, moreover, is within a radius of 50 miles of Birmingham, where it would be in great demand as a mixture with the calcareous Clinton ores of Red Mountain."

The demand for iron ore promises to far exceed the supply. With every furnace and steel plant in condition to be operated running to fullest capacity, with many long idle furnaces being put into shape to go into blast, there will of necessity be a great increase in the demand for iron ore throughout the country. The Lake Superior district is taxed to the utmost limit of its ability to produce and to ship its ore. This condition of affairs should, therefore, bring into active development all of the available ore deposits of the South where mining operations can be carried on to advantage and a nearby market found for the product. The development of the two important ore properties in Eastern Alabama to which reference has been made should be followed by the development of other ore properties in that section.

For many years there have been a number of idle furnaces in Alabama, some of which it was supposed had been permanently abandoned. Nearly all of these properties have now been taken over and are being put in shape for early operation. The Trusville furnace, which has not been in blast for some years, has been

sold to Chicago people; the Talladega furnace which has been out of operation for 12 or 15 years, has been taken by Birmingham people, and other long idle furnaces will now become producers and be in the market for ore and coke.

The revival of these interests is important to the South, but this section should not longer depend upon existing plants, but should plan for the development on a larger scale by entirely new investments of iron and steel interests, otherwise the South will miss the opportunity of reviving its iron industry and putting it on a solid foundation during this period of high prices and incessant demand for iron.

MISSISSIPPI'S EARNEST EFFORTS AT FOOD CONSERVATION.

Will Increase Production and Combat Waste-fulness—Soy Bean Meal as a Substitute for Flour.

Jackson, Miss., April 21.—[Special.]—Mississippi's concerted effort to produce the greatest amount of foodstuffs in the history of the State, begun recently with the organization of a State Council for Defense, will be supplemented by a determined drive against waste-fulness in the homes of the State and against the use of high-priced foods wherever cheaper ones will serve as well.

Fifty county home economics agents, State agricultural extension workers, experts from the various bureaus of the Department of Agriculture, business men and farm implement makers from all parts of the United States took part in a conference at Mississippi A. and M. College, the purpose of which was food conservation.

Arrangements were perfected at the conference for the purchase of all the thousands of cans needed by the girls' canning clubs of the State. The State Bankers' Association will furnish the money.

Speakers urged the necessity for immediate elimination of waste in Mississippi kitchens through more modern methods of preparing foods and through a better understanding of dietary needs.

One of the most interesting experiments in substitutes was the making of hot biscuits and cookies from soy bean meal. The use of cornmeal and all other substitutes for wheat flour was urged.

The Conservation Conference will work hand in hand with the State Defense Council, and will co-operate to preserve whatever surplus fruits and vegetables may be left this fall, when the harvest of foodstuffs that is now being put into the ground comes in.

Augusta Organizes Builders' Exchange.

The Builders' Exchange of Augusta has perfected its organization with a membership of 50 of the leading contractors, subcontractors and material dealers in Augusta, and has opened quarters in the Harrison Building, with C. H. Van Ormer, secretary.

The object of the association, in accordance with its charter, is to encourage and protect principles of dealing with the contractors, architects and material men, to the end that membership in this exchange shall be an assurance of skill and reliability, to foster the growth of the city and county by promoting the erection of well-planned, properly constructed and equipped public and private buildings; to avoid unjust controversies and difficulties liable to occur between persons engaged in building trades; to provide a means of acquaintance and social enjoyment, and to enlarge the business views of those who become members.

It is not the purpose or intention of this exchange to in any way fix, regulate or control prices, or to curtail any of the rights and privileges of labor.

The members of the different crafts, the dealers of supplies and manufacturers who are in any way connected with the building industry, as well as the contractors and subcontractors, have responded in an enthusiastic manner, as evidenced by the fact that 90 per cent. of those eligible have already become members.

It is also the purpose of this exchange to establish a complete information bureau of all data essential to either owners, architects or members of this exchange, and will be glad to receive information, literature, samples and prices from the various manufacturers and dealers of anything pertaining to the building industry.

Illustrated Historical Sketch of Southern Capitols.

Attention is necessarily centered at the present time upon the patriotic history of our land, and as events connected with the founding of this great republic are so closely associated with the capitols of the Southern States, the booklet entitled "The Capitols of the South," by Henry D. Boynton, is of especial interest.

Besides brief historical references, the booklet contains beautiful views of the legislative halls of the States of Georgia, South Carolina, Virginia, North Carolina, Kentucky, Tennessee, Louisiana, Mississippi, Alabama, Arkansas, Florida and Texas, together with an account of the location of the capitols of those States from their formation to the present time. A feature of the booklet is a reproduction, in their official colors and designs, of the flags of the States mentioned; also facsimile copies of the great seals of the same States are shown surrounding the great seal of the Confederacy, itself an historic relic of great interest. An account of the various locations of the Federal seat of government with a view of the National Capitol at Washington is given, as are shown views of the old State capitols that are still standing, and the "White House of the Confederacy" at Richmond.

The book, which is 9x12 inches and contains 32 pages, is attractively printed on white marble paper. It is sold for 50 cents a copy, and may be obtained from the author, Henry D. Boynton, 1233 B street S. E., Washington, D. C.

"Nation's Hat Blown Into the Ring."

Clarkston, Ga., April 23.

Editor *Manufacturers Record*:

For years the thunder, lightning and rain have not been as constant and appealing in our nation as your voice for preparedness. Your words have come true. The nation's hat has been blown into the ring. It is too late now for any American to split straws over what our President wants. Congress has put the cigar in the nation's mouth, and she has got to smoke it or pay an indemnity that would stagger all Europe. The enemy is not in bed, sick or asleep, as pacifists, fanatics and dullards think. He is the most wide-awake and well man in the world today.

I pray Almighty God that Washington may take the *MANUFACTURERS RECORD's* advice. Call it conscription, draft or what not, a nation's safety by its military policy is known, I believe, in thorough preparedness against all nations.

W. E. WIMPY.

To Drain 80,000 Acres in Southwest Texas.

Corpus Christi, Tex., April 17.—[Special.]—Commissioners Messer, Brendle and Peters of the Robstown drainage district have completed arrangements by which 80,000 acres in the Robstown section will be drained, work on the contract to begin at once.

Bonds for \$158,000 to pay for the improvement have recently been sold.

Only residents of the district will be employed in the work. Due to the dry weather, many of the farmers of that section have idle teams that they can put to work on this improvement project, and the bond issue will thus serve the double purpose of improving the district and furnishing employment to idle labor and using idle teams.

It is estimated that the contract can be completed within four months.

Developing Canning Activities.

Mr. R. A. Dewar, president of the Fidelity Fruit & Produce Co. of Atlanta, suggests through the Constitution of that city that every kitchen in the South should for this season become a cannery, and that as very few people understand how to preserve vegetables, the Government should print instructions for canning and preserving vegetables, fruits and eggs, and that these should be published in every newspaper throughout the country.

Mr. Dewar suggests that his concern is considering the advisability of securing a small canning outfit for use this summer to save surplus vegetables which come to produce houses of Atlanta at times when it is impossible to find ready sale for them.

ENORMOUS GAS WELL IN SOUTHERN LOUISIANA.

Estimated Flow of 80,000,000 Cubic Feet Daily at Terrebonne Well—Pipe Line to Serve New Orleans Industries—Verification of Prediction by Dr. David T. Day.

New Orleans, La., April 24—[Special.]—Manufacturing and industrial New Orleans, appreciating the possibilities of natural gas service, enthusiastically welcomes the bringing in of the mammoth gas well near Houma, the county-seat of Terrebonne parish. The Terrebonne Oil & Gas Co., which controls McCormick Well No. 1, will pipe the distance between the gas field and New Orleans, about 45 miles. A 16-inch pipe line

rally Terrebonne parish and the whole of the extremely southern part of Louisiana is in a fever of excitement. Prospectors from various parts of the United States are in the new gas field. There are additional arrivals almost daily. Representatives of several large corporations are now in Terrebonne parish, searching for locations of gas and oil wells. Land values are advancing rapidly. Merchants and business men realize the great impetus that natural gas will give to the development of this section. Heretofore the people of Terrebonne parish have been largely interested in the production of sugar-cane, and there has also been built up an important industry in the handling of fish, shrimp and oysters. Today interest is mainly centered in natural gas and what it means to Houma and this entire section.

The Terrebonne Oil & Gas Co. is headed by W. B. McCormick of Shreveport, La., prominent as an operator in the Red River and DeSoto oil and gas fields. Mr. McCormick has been in close touch with Terrebonne parish for some time. After thorough investigations of the field, he began drilling operations this year, with the result that the greatest gas well ever discovered, so experts declare, has been brought in. The gas was struck in shale rock at a depth of 2700 feet. After being capped, the derrick was blown down during a storm, and the falling derrick broke the pipe and caused the well to run wild. After running wild for four days, it was brought under control by J. T. Leach, an expert in such work. While running wild, an open test made by Mr. Leach showed a pressure of 192 pounds to the square inch. Using a half-inch piping for the open test, Mr. Leach figured that the well will have a pressure of over 1200 pounds to the square inch when closed. The enormous pressure is indicated in the fact that, while the well was running wild, every man at work around the well was forced to bandage his ears to protect the ear drums from the tremendous roar of the well. The roar of the well was heard 15 miles away. It is estimated that there is a daily flow of 80,000,000 cubic feet of gas, which makes this so experts declare, the greatest gas well ever discovered anywhere.

The well was drilled in what is known as the Wisner tract of land, and is located about 18 miles southeast of Houma.

Considerable work has been done in recent years in prospecting the Terrebonne field, and gas has been struck from time to time, but heretofore it was found in pockets or without the protection of a cap rock, and each time a discovery was made the well caved in. It had long been predicted by Mr. David T. Day, for many years with the United States Geological Survey, that a great flow of oil and gas would ultimately be discovered in Terrebonne parish. It is believed that the prediction of Dr. Day has now been fully verified and a great development of the Terrebonne oil and gas field is now anticipated.

Charleston to Gauley Bridge, W. Va.

The Charleston-Gauley Electric Railway Co. has been chartered in West Virginia to build a line from Charleston along the north bank of the Kanawha River to Gauley Bridge, 35 or 40 miles; capital stock \$100,000. Such a railway would traverse a well-populated region and would also, it is stated, penetrate a rich coal field. The incorporators are all residents of Charleston, as follows: George P. Alderson, George B. Brooks, John Y. Arter, B. T. Clayton and J. H. Nash. Charles C. Dickinson is to be president of the company.

The Government Nitrate Plant.

THURSTON H. ALLEN, Florence, Ala.

The President of the United States is calling on the farmers to produce more foodstuffs, yet the great Farmers' Union of the United States has petitioned in a long series of resolutions to locate the proposed nitrate plant at Muscle Shoals, and their request has been ignored. Why did they ask this? Let us look at it from the farmers' standpoint. His principal commercial interest is in his crops. He needs more fertilizer. Try as he will, he does not make his fields produce the values they do in Great Britain, France, Germany, Belgium, Holland, Sweden or Norway. Why is it that the fields of Great Britain produce two and one-half times as much

wheat and corn as do the United States? Why is it that on an acre of land the Dutch farmer produces twice as much barley, the Belgian farmer twice as much oats, the German farmer twice as much rye and potatoes as does the American farmer? The answer is fertilizer. German experiments have shown that by addition of 2,175,000 tons of nitrogen to the soil of the entire empire additional crops have been obtained amounting to 63,300,000 tons. Does this suggest anything toward reducing the high cost of living?

Take the comparison of the use of fertilizers in four countries in 1914; since that time we have had no authentic figures:

POUNDS OF FERTILIZER USED PER ACRE OF IMPROVED LAND.

Belgium	448
Germany	214
Great Britain	152
United States	28

The foregoing statement does not speak so well for the United States. Why is the amount of fertilizers so small in the United States? The cost is prohibitive. This 28 pounds per acre caused the farmers of the United States in that particular year to spend \$170,000,000 for fertilizers, of which \$49,622,000 went for imported ingredients to make fertilizers. The above figures are taken from the most excellent work by Henry J. Pierce, entitled "Looking Squarely at the Water-Power Problem."

To bring our crop yield up to Great Britain, Germany and Belgium would simply bankrupt the farmers at present prices of fertilizer. We must, as the President says, boost our crop yield, for our population is increasing and we have to feed our allies. The President calls on the farmers, and he knows they are loyal and want to respond, yet their petition has been ignored and neglected.

It is just impossible, as the farmers set forth in their resolution, for them to produce more unless they have cheaper fertilizers. We see now the results of delay in the matter of locating this nitrate plant.

Prospecting for Oil in Mississippi.

Jackson, Miss., April 23—[Special.]—Two wells near this city, where prospecting for oil has been under way for more than two months, have passed the 3000-foot mark, and it is expected that another week will determine their success or failure. One is being sunk by the Benedum-Trees Company; the other by the Atlas Oil Co.

Both companies have large holdings here, and officials have stated publicly that they will not abandon the field until fully satisfied that no oil is to be found. An anticline near Jackson and the general geological formation give promise to the operations.

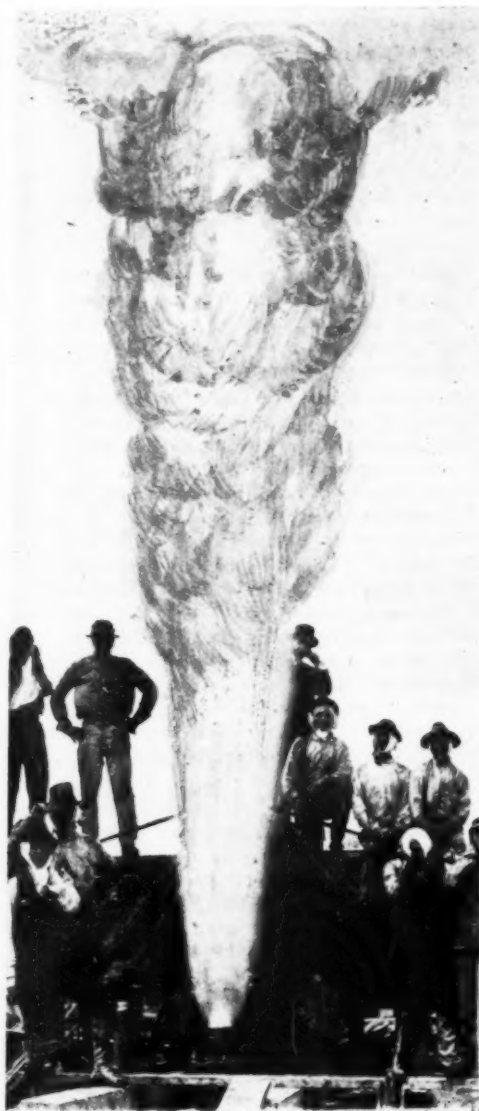
Drilling is expected to begin shortly in Warren county, near Vicksburg, by a local concern. The Atlas company is sinking one well in Harrison county, on the Gulf coast, and will start another near Biloxi within a few weeks.

Work has been done quietly, and without calling upon local capital.

Big Hosiery Mill for Frostburg.

About \$200,000 will be the cost of an additional hosiery knitting plant which the Parker Hosiery Mills & Dye Works Co., Portsmouth, Va., will build at Frostburg, Md. Plans provide for an installation of 1000 knitting machines with the electric power drive for a daily capacity of 3000 dozen pairs of hosiery. The building will be of fireproof construction, two stories high and 150 feet long by 80 feet wide, including equipments for electric lighting and steam heating. This new mill will employ 400 operatives. The plant will be provided with improved sanitary conveniences for the employees. The company's Portsmouth mill inaugurated its lunchroom service last week, and the occasion was celebrated with appropriate exercises. Nearly 200 operatives are employed in this mill, and they are enthusiastic in their approval of the management's efforts to promote their comfort and convenience.

O. A. Knox, Cleveland, Tenn., will establish a hosiery knitting mill. He has leased a building and purchased the necessary machinery.



MCCORMICK GAS WELL NO. 1, TERREBONNE PARISH, LA., RUNNING WILD.

will be laid, which will carry sufficient gas to furnish fuel for every industrial plant in this city. The supply also will be adequate to light every residence and business house in the city, in addition to supplying all sugar mills enroute to New Orleans with fuel and illuminating gas.

The opinion is expressed that the development of the Terrebonne gas field will bring many manufacturing and industrial enterprises to New Orleans. Low prices for fuel gas served through the pipe line will enable companies and corporations to establish glass factories along Lake Pontchartrain, where lake sand can be obtained in abundance. Cheap gas also, it is believed, will result in the establishment of porcelain factories and potteries in Terrebonne parish, where clay deposits are located.

It is roughly estimated that the pipe line into New Orleans will be built at a cost of \$18,000 a mile, or an aggregate of \$1,500,000 for the entire distance of 45 miles.

McCormick Well No. 1 opens what experts claim to be the greatest natural gas field in the world, and natu-

The Iron, Steel and Metal Trades

STEEL MARKET CONTINUES TO GAIN STRENGTH.

Mills Overcrowded With Government and Private Work—Current Orders Now Exceed 100,000 Tons Daily—Wire Products Advanced—Pig-Iron Higher.

New York, April 23.—[Special.]—The steel industry last week booked business at a greater rate than ever before in its history, which is saying a great deal in a market such as we have had for the past year or since the European war started, in fact. To such a state has the market come that it is now difficult to distinguish between orders for war and for domestic purposes. Orders taken throughout the week by the mills of the country were said to be in excess of productive capacity, or at the rate of over 100,000 tons per day. The requirements of the United States Government alone are now estimated at between 1,000,000 to 2,000,000 tons for the year 1918. The Government released more contracts last week for ordnance, ammunition, etc., to equip and maintain the army and navy for a year's duration. It is estimated that the Government will require about 2,000,000 tons of steel for various purposes in the next year, and serious consideration is now being given to the allocation of steel contracts.

The entire burden of supplying steel for Government naval contracts has fallen heretofore practically upon the United States Steel Corporation, the latest order placed with that concern being 18,000 tons of steel ship plates and shapes for the building of 30 torpedo-boat destroyers. It is the determination of the Government, however, to distribute orders equitably among the various steel manufacturers in accordance with their capacity and productive costs. The plan and basis of distribution are now in competent hands, and will be put into effect in the very near future. In order to prevent any one mill from being too heavily taxed in meeting Government requirements at substantial concessions from the current market, there is reason to believe that manufacturers of raw material will also be required to bear their share of the burden. Because of these arrangements it is believed that the same effect which followed the lowering of copper prices to the Government will be apparent in the course of those of steel. An undue advance at least will be checked, even if a reaction in prices does not follow the concessions made to the Government.

At the time of the breaking off of diplomatic relations with the Imperial Government of Germany it was the current belief that the United States Government would commandeer the various steel and industrial plants of the country in the event of actual war. It is stated on the highest authority, however, that the Government has no intention at this time of any such action toward those plants which show a disposition to accept Government contracts for war munitions and to give the best services at their command. Where plants are reluctant to accept Government orders, however, and refuse to carry their share of the general burden, the Government will compel the acceptance of contracts, to be executed under the manufacturers' own direction and management, provided that there is no decrease in production, deficiency or quality or increase in productive costs over ordinary operations. In the event of the latter case the Government will take over the plants and operate them as a war measure.

The vast difference at which Government agencies are enabled to purchase steel and iron, as compared with that charged other consumers, is startling. During the past week the Government received the option of paying \$58 a ton for plates and \$50 for steel bars and structural shapes. Deliveries are to be made immediately upon receipt of specifications at mill. This, in some instances, will be over night, which clearly illustrates how well prepared the mills are and how rapidly they can turn out work in emergencies.

The great discrepancy between quotations given the Government and those given domestic consumers cannot be made clear in simple figures. During the past month Japanese buyers hesitated to pay 8 cents, or \$160 a ton, for ship plates. Last week they declined to place the order when the price was advanced to 10 cents, or

\$200 a ton, and producers refused to take the order. The shipyard that wanted and could get ship plates as rapidly as the Government would be glad to pay 10 cents a pound for it instead of paying 5 to 5.50 cents with delivery at convenience of mill. The Government is being favored at the rate of \$22 a ton in building material at the lowest possible quotation made by any steel manufacturer. On steel bars the Government will receive an advantage of \$27 a ton. While the monetary consideration is large, prompt deliveries are far more important. The steel trade is awaiting with interest the result of the conference of the Federal authorities with the English High War Commission, as it is thought that it will have an important effect upon the relations of the Government and the steel industry throughout the duration of the war.

Refusals of mills to accept orders for plates were numerous during the past week. One offer of 18,000 tons of ship plates, one of 2000 tons of boiler plates, one of 6000 tons of ship plates and plates for 250 locomotives for export and a vast amount of miscellaneous material were turned down. The mills are clearing their plants of everything which might impede progress on Government work. One of the requirements of the Government will be thousands of steel ranges for field use. Steel is going forward to finishing plants for millions of small shells. It is doubtful if the Government will call for many of large caliber, as they can be made more rapidly than guns to use them.

When war was declared it was feared private consumers would be cut off entirely. This has not proved to be the case. With increased production the extra work contracted for by the Government has not made a ripple in supplying other consumers. Steel manufacturers are holding their plants, however, to be turned over to Government work exclusively if necessary. While the war has been used as a pretext to advance prices, there has been absolutely no excuse for it. If consumers would not hurry shipments it is probable that there would be a decline, instead of an advance, in quotations. Many are contracting as far ahead as the mills will accept orders, and frequently three or four times the amount of actual requirements. Foreign inquiry also has a tendency to create higher levels. With every mill and furnace breaking all records in output, however, it would seem as if the steel plants of this country could supply the entire world without straining. During the winter railroad freight conditions held the mills up in deliveries of all material. Much of this has been overcome, and freight deliveries are now almost normal. It was believed that troop movements would disarrange freight schedules, but this has not taken place to date. It appears natural that, if production is maintained at its present ratio, everybody will be taken care of, and there need be no anxiety as to future supplies.

The steel market last week was one of gaining strength, with a tendency of upward prices, as a result of the overcrowding of the mills with both Government and private work. It was fairly swamped with orders from all directions and all sources. While private manufacturing concerns have been holding off as far as possible, and new business from this direction has been proportionately light, yet there is still a heavy accumulation of tonnage awaiting fulfillment over quite an extended period, and contracts now taken are dated further and further ahead. It was reported last week that our allies will reconsider their decision to withdraw all further orders for shell and other munitions. The contracts still to be filled are considerable, however, and all haste is being made to rush shipments. It is probable, from all reports, that, as Great Britain and France are well supplied and have the situation well in hand, there will be little further call for small arms and explosives. But while the character of the tonnage may be changed, there is no prospect of any falling off in the gross volume. Demand for export for all kinds of raw and finished steel products is increasing steadily, and the movement promises to continue heavy for an indefinite time.

Renewed inquiry was made last week for fourth quarter and early next year delivery of steel plates. Steel and iron bars were advanced in price. Large tonnages of the former product are to be worked into heavy chain for Government use. Production is enormous, however,

and once the Government has adopted a settled policy there should be no trouble in securing an adequate supply of steel bars. Should the Government decide to restrict the distilling of alcoholic beverages during the war there may be a sweeping reduction in hoops, which at present cannot be rolled fast enough to supply the demand. Nuts and bolts were put up 5 to 15 per cent, due to the higher cost of steel and iron bars. Rivets were advanced \$10 a ton some time ago, and another rise of \$7 a ton has just been reported. Sheet bars were put up to \$80 a ton for delivery during the third quarter. No contracts have been accepted beyond that period. They were in active demand last week, and quotations will necessarily go higher.

Another rise is anticipated in tubular products. As crude oil advances, so do oil country goods. Shipments cannot be made short of six and twelve months, thus precluding the possibility of placing contracts for large tonnages.

Tinplate manufacturers have received preference in deliveries of sheet bars at the request of Secretary Redfield of the Department of Commerce. Cannery will be aided in producing the largest number of cans ever made in the world. Foodstuffs will be one of the army and navy's first requirements, and cannery have been placed on their mettle to supply them. Without an adequate supply of bars they would be unable to meet the demand.

The railroads dropped out of the market last week for the time being. One lot of 5000 tons of rails for delivery next year was booked by a Western mill for a Western railroad. The Government requires a number of gun carriage cars of heavy type.

On Friday of last week the Cambria Steel Co., a subsidiary of the Midvale Steel & Ordnance Co., following the action of the Youngstown Sheet & Tube Co., advanced the price of wire products \$6 a ton, which became effective at once. The Pittsburgh Steel Co. and the Jones & Laughlin Steel Co. took similar action, advancing all wire products \$6 a ton, making wire nails \$3.50 per keg. This is the highest price recorded in the past 25 years. The American Steel & Wire Co. thus far has taken no action in response to the advances made by competitive companies. It is understood to be the policy of the United States Steel Corporation and its subsidiaries not to make any further advances in prices at the present time, but it is possible, after reconsideration, that the wire subsidiaries may be influenced by the advances now put into effect by the independent companies.

The advancing prices in pig-iron during the past fortnight reflect the extraordinary demand for it, and gradually the market grows even stronger and higher. It is not to be wondered that all domestic concerns which can get along without iron for the present continue to hold aloof, but everybody cannot stay out of the market, and buying pressure adds to the already strong position of the market. Nothing definite as yet has come out in regard to a possible price to be set by the Government, but it is doubtful that even such a contract price as might be determined by Washington would materially, if at all, affect the market for the ordinary domestic consumer. The plain fact may be well repeated here that the furnaces are so well sold ahead and the volume of inquiry is such that producers can afford to be independent, and it is very easy for them to mark up prices, especially when the demand is for nearby delivery.

(Dealers' average buying prices for gross tons.)	
Bessemer billets (nominal).....	\$75.00—\$80.00
Open-hearth billets (nominal).....	75.00—80.00
Open-hearth sheet bars.....	75.00—80.00
Bessemer sheet bars (nominal).....	75.00—80.00
Forging billets.....	90.00—
Wire rods.....	85.00—90.00
Rails.....	55.00—56.00

(Dealers' average buying prices for pound lots.)	
Tank plates.....	4.50—5.00
Steel bars.....	3.35—3.75
Refined iron bars.....	3.75—
Steel hoops.....	4.00—4.50
Cold-rolled strip steel.....	7.50—8.00
Sheets, No. 28 gauge.....	6.50—7.00
Galvanized sheets.....	8.00—9.00
Wire nails.....	3.20—3.50
Cut nails.....	3.20—3.50
Plain fence wire, base.....	3.15—3.45
Barb wire, galvanized.....	3.85—4.15
Railroad spikes.....	3.85—

PIG-IRON.

Bessemer, Pittsburgh.....	\$42.95—\$45.95
No. 2 foundry.....	40.95—42.95
Basic, valley.....	40.95—42.95
Gray forge.....	39.95—41.95
Basic, Philadelphia.....	40.00—
No. 2 foundry, Northern.....	42.75—43.75
Low Phosphorus.....	42.00—
No. 2 foundry, Buffalo.....	42.00—45.00
No. 2 South, Cincinnati.....	37.90—39.90
Northern foundry, No. 2 Cleveland.....	39.30—39.95

SCRAP-IRON AND STEEL.

Heavy melting steel.....	\$28.00—\$29.00
Old steel rails, re-rolling.....	35.00—36.00
Old iron car wheels.....	22.50—23.00
Old steel car wheels.....	31.00—32.00
Steel car axles.....	50.00—55.00
Iron car axles.....	45.00—50.00
Low phosphorus.....	38.00—39.00
No. 1 cast scrap.....	23.50—24.00
Heavy cast scrap.....	20.00—21.00
No. 1 railroad wrought.....	30.00—31.00
Cast borings.....	15.00—15.50
Machine-shop turnings.....	14.00—14.50
Railroad malleable.....	26.00—27.00
Stove plate.....	15.00—16.00

TIN SHOWS STRENGTH IN A QUIET METAL MARKET.

Copper Market Weak and Sagging Under Absence of Demand—Lead Easier and Spelter Dull—Tin Advances Five-eighths Cent.

New York, April 23.—[Special.]—The only metal that showed any activity last week was tin, and for the first time in many months this metal takes the lead of all others in importance and interest. Revolutions are the fashion just now, and "King Copper" has been forced to abdicate his throne for that more democratic metal, tin. Reports of German submarines off the Atlantic coast were the first cause of excitement in the market, which was followed by the news from Washington that, among other things to be selected for a special war tax, tin had been singled out for a probable impost of 10 cents a pound. In reaching such a decision the Government authorities were possibly influenced, not by the probable effect in the tin market itself, but by the possible consequences to the cost of tinplate and other so-called finished tin products. An impost of 10 cents in the raw metal could, of course, add but a trifle to the cost of plate, but it would make a decided difference to the importer of the raw metal. Anticipating the probability of such a duty, holders of tin last week were by no means anxious sellers.

The movement in tin for the past week showed an advance in the spot price of about five-eighths cent per pound, while far-off futures were nearly one cent per pound higher than the cheapest lots offering a fortnight ago. Inquiries were heard of in the trade for tin "due to arrive" in July, August and September, but consumers will have to make up their minds to contract in future for tin "for shipment from the East Indies" during certain months instead of tin "due to arrive." The market closed for the week firm, with an upward tendency.

Buyers of copper on private consuming account were shy of the market last week. The fact that producers had made such liberal concessions to the Government and that there is at least a possibility of our allies sharing in these concessions has had its influence, and domestic buyers not immediately in need of the red metal are for the present out of the market. There was also a strong disposition on the other side to hold off under the influence of the same uncertainty, and until the situation is more clearly defined it must remain a case of "buyers and sellers apart." The copper market was decidedly weak, and showed an unmistakable tendency to sag under absence of demand and some selling pressure.

There was an easier tone to the lead market last week, and prices were inclined to ease off from previous levels. The slight concessions offered, however, were not sufficiently inviting, and buyers continued to hold out of the market. The underlying conditions point toward a strong position, however, and it is likely that any development of buying interest might lead to advancing prices.

There was practically no interest shown in spelter last week, and the market was dull and weak. The concessions offered by producers were not attractive to buyers, and there were few sales. The weakness was due to heavy domestic stocks and the absence of buyers on the other side.

THE WEEK'S PRICES.

	Copper.	Electrolytic.	A. S. & R. C.	Lead.	Spelter.	Tin.
Monday, April 16.....	32.50—33.00	32.00—32.50	9.00	9.25—9.50	9.67½—9.80	55.25
Tuesday, April 17.....	32.00—32.50	31.50—32.00	9.00	9.37½—9.62½	9.37½—9.62½	55.37½
Wednesday, April 18.....	31.50—32.00	31.00—32.00	9.00	9.37½—9.62½	9.30—9.55	55.25
Thursday, April 19.....	31.50—32.00	31.00—32.00	9.00	9.37½—9.62½	9.17½—9.42½	55.62½
Friday, April 20.....	31.00—32.00	30.50—31.50	9.00	9.50—9.75	9.05—9.30	55.75

Firmness in Birmingham Prices, With Producers Reluctant to Book Orders.

Birmingham, Ala., April 23.—[Special.]—Southern furnace companies are not seeking much business, and while inquiries are quite numerous, there are not many sales being heard of. The quotations are being maintained firmly around \$35 per ton No. 2 foundry standard, so far as iron that can be delivered this year is concerned, and the minimum to be heard of for iron to be delivered during the first half of the coming year is \$33. Reports were current recently that iron had been offered on the open market at \$32.50 per ton No. 2 foundry, but inquiry fails to ascertain who had entered the market again. The Alabama Company, through J. W. Porter, announces being out of the market. The Republic and Woodward companies have been very cautious of late in their selling, while the Sloss-Sheffield Steel & Iron Co. has been willing to sell, but only at the maximum price, delivery during the last half of the year being considered the same as spot iron. The Steel Corporation (Tennessee Coal, Iron & Railroad Co.) is not heard of much, its offerings of foundry iron not being very extensive. There was some sounding out of \$40 per ton, immediate delivery, but if any business was attracted it cannot be verified, though some special brand and special analysis irons were disposed of in small lots at \$36, and even better, recently.

The car situation in the South has not been relieved entirely, though it is admitted that more iron is being shipped out or melted in the home territory than is being manufactured. In other words, there is a reduction in the accumulated stocks. The make for the present month in the Southern territory will show a slight falling off when the figures of production are tabulated next week.

The Sloss-Sheffield Steel & Iron Co. is rushing the work of relining the City furnace. Long before the ironmaker is ready to resume operations the 288 coke ovens in close proximity to the furnace will have been gotten in shape and will be making upwards of 15,000

tons of coke per month. This commodity, above all others, has given the Sloss-Sheffield Steel & Iron Co. more trouble in keeping its ironmakers at a maximum operation than any other thing, and it is now believed that all anxiety will be relieved. The little Eagle furnace at Attalla, taken over by the Gulf States Steel Co., will add about 100 tons of basic iron to the general production when the furnace is in full operation. The Rome (Ga.) furnace, taken over by Harry S. Matthews of Birmingham and associates, is being gotten in shape rapidly. While purchasers of the Talladega (Ala.) and Trussville (Ala.) furnaces have been announced, there can be no figuring on the time of resumption of operations for 90 days at least, as the ironmakers need much attention, and if there is day and night work done it will take that much time at least.

Inquiries in hand would indicate again that some consumers are still in need of iron for the present year. Furnace companies are considering orders ranging from 500 to 6,000 tons each, delivery fourth quarter this year and first half of next year. Brokers are unable to do much business, as they are finding it just as difficult as consumers to get producers to book orders. Activities, by reason of the war between the United States and Germany, have brought about no reasons for apprehension in this district, and there is no belief here now that the Government is going to find it necessary to present immediate demands.

Notwithstanding the recent advance in quotations for cast-iron pipe, some specifications are in hand for quite a little tonnage, it is asserted. Old orders for pipe will require a steady melt of iron for some time. Scrap-iron dealers assert that contracts made with the cast-iron pipemakers would indicate that there will be pipemaking on a strong basis for some time. Even the little independent plant, the National Cast Iron Pipe Co., has business in hand that will require some weeks yet to fill, and earnings are most healthy by reason of the fact that low-priced iron is yet being received.

Steel plants in the Southern territory, all shapes, are in full operation. At the big steel plant of the Tennessee

see Coal, Iron & Railroad Co. operations only cease on Sundays, and the off time is taken up in making necessary repairs. The rail mill is operated every other week, and though there is no authoritative statement, it is understood that the make at this pace in rail will be needed not only through the balance of this year, but well into 1918, with some inquiry on as to the following year. The Gulf States Steel Co. will feel good effects right away from the starting up of the by-product coke-oven plant, 450 to 500 tons of coke being produced daily, while the basic iron to the amount of nearly 100 tons a day from the little Eagle furnace will also be acceptable.

Quotations in the South are given as follows:

PIG-IRON.

No. 1 foundry and soft.....	\$35.00 to \$36.00
No. 2 foundry and soft.....	33.00 to 35.00
No. 3 foundry.....	29.00 to 31.00
No. 4 foundry.....	28.00 to 29.00
Gray forge.....	27.00 to 28.00
Basic.....	33.00 to 35.00
Charcoal.....	38.00 to 40.00

OLD MATERIAL.

Old steel axles.....	\$35.00 to \$36.00
Old steel rails.....	22.00 to 23.00
No. 1 wrought.....	22.00 to 23.00
Heavy melting steel.....	19.00 to 19.50
No. 1 machinery.....	19.00 to 19.50
Car wheels.....	18.00 to 19.00
Tram-car wheels.....	17.00 to 17.50
Stove plate.....	13.00 to 14.00
Shop turnings.....	8.50 to 9.50

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

RAILROADS' WORK IN THE WAR.

Urging Farmers and Others to Increase Crops. Preparing to Handle Government Trains.

J. F. Jackson, agricultural agent of the Central of Georgia Railway, has sent to all its agents a number of copies of a poster on the war asking them to post a copy in each station and the others in conspicuous places about each town. The message which the poster conveys is shown by the following introduction: "Our country is at war! Our help is needed. Will you do your share? The South can be relied upon to furnish its full quota of soldiers, but are we ready to respond to the more pressing need for food supplies? It has been our boast that, in addition to a monopoly of the cotton crop, we could, if necessary, produce practically all the crops grown in other sections, and at a profit. In this crisis, can we permit other sections to send us food which is so urgently needed in Europe? Even though we can afford to pay war prices for it, will our pride and our patriotism suffer the disgrace of allowing other sections to feed us?" Following is this: "Enlist your acreage in the service of your country. Every extra pound of food produced in the South will help win the war."

In line with the suggestion of President Wilson and the United States Department of Agriculture, the 12 demonstration farms of the Nashville, Chattanooga & St. Louis Railway, representing 1763 acres, will be turned over to the cultivation of food crops during the war, the company having announced that its plans for a system of crop rotation had been abandoned for the present and that it would devote its efforts toward increasing the production of crops for the feeding of man and beast. Joseph H. Judd, in charge of the farming interests of the company, says that every farm foreman and laborer will be furnished the ground and given the implements and time to put in a garden for the needs of his family. The company operates demonstration farms at Tullahoma, Decherd, Martin, Paris, Somerville, St. Andrew's, Smartt's, Spencer, Clifty, Murfreesboro and Dickson, Tenn., and Albertsville, Ala.

"Our participation in the war makes it more than ever important that every Southern farmer shall produce the foods and feedstuffs needed for the people and animals on his farm and a surplus for sale," says President Fairfax Harrison of the Southern Railway system. "It should be impossible to find a farm anywhere in the South without a home garden. The meat supply of the world is short, but there is no part of the United States in which meat can be produced more profitably than in

the South, and every Southern farmer should at once adopt the policy of producing more than enough meat to supply his own requirements. But, however high prices may go, he should not yield to the temptation to sell his breeding animals; that will be cutting off large future profits."

Operating officials of the Baltimore & Ohio Railroad, called together at Baltimore in special session by J. M. Davis, vice-president of operation and maintenance, held a three days' meeting. Assembled at the road's headquarters were the chiefs of all the branches of the operating department, including general managers, general superintendents, superintendents, heads of the transportation and motive power departments and their staffs from every division point and district of the entire system. The meeting was called to perfect arrangements for the movement of Government supplies and troops and to subordinate every phase of operation to any possible demands that the Government may make and to see that nothing is left undone to provide quick communication and the most efficient service during war time. Provision will be made to afford complete protection to all shipments of Government supplies and to facilitate the movement of troop trains with the greatest dispatch. Every precaution will be taken to frustrate any designs inimical to the safety of the road's property, equipment and traffic.

Harahan Memorial Bridge Celebration.

Although the great Harahan Memorial Bridge which spans the Mississippi River at Memphis has been in use since July, 1916, by the St. Louis, Iron Mountain & Southern, the Chicago, Rock Island & Pacific and the St. Louis & Southwestern railroads, which constructed it jointly, it will not be wholly completed until some time in May, when the vehicle and pedestrian passageways will be opened to the public. From May 22-24, inclusive, a formal celebration of the completion and use of this great steel span will be staged by the people of Memphis. Among the features of the three-day celebration leading up to the dedication exercises will be a pageant in which 4000 actors will participate, and seats for 40,000 people will be provided to witness parades, water events, aviators, naval representations, etc.

The Harahan bridge is one of the largest in the country, and solves for the three railroads that cross it the knotty problem of transportation to and from the West from their lines east of the Mississippi. Its construction began in August, 1913, and would have been completed sooner had not high water in the two following years retarded it.

The bridge is 4913 feet long from the end of one approach to the other, 2364 feet of which constitute a steel viaduct on the Arkansas side, supported by 76 concrete pedestals. Approximately 22,500 tons of steel were used in its construction, 5500 tons of which are in the viaduct and 17,000 tons went in the bridge itself. The width of the bridge over all is 64 feet, in which are two 14-foot rail lines, besides two wagon, automobile and carriage ways of equal width, one on each side. There is also provision for foot passengers.

Atlanta & Anderson Railway Organized.

The Atlanta & Anderson Railway Co., which is to build the proposed electric interurban line from Atlanta, Ga., to Anderson, S. C., about 140 miles, has been organized at Atlanta with J. L. Murphy, president, and Mark Bolding, secretary. The board of directors, who include the officers, consist of prominent stockholders who reside along the route, the other members being J. G. Craft, G. W. Westbrook, H. P. de la Perrie, I. H. Phillips, Wm. D. Bowers, W. B. Hardman, C. J. Hood, W. H. Smith, R. L. J. Smith, W. E. Simmons, Albert Howell, Jr., L. G. Greer and Hugh Howell.

It was announced at the stockholders' meeting that H. M. Atkinson of Atlanta had become sufficiently interested in the enterprise to pledge his personal efforts to finance the construction and operation of the projected railway, provided that the residents of the counties affected by the development displayed a practical interest in its success and also provided that the Georgia Railroad Commission would authorize the issue of securities on a basis which would guarantee the successful operation of the road.

Reports were submitted showing that the plan was

receiving both enthusiastic and practical support in the communities along the line, and the directors instructed the officers and attorneys to take the necessary steps to issue stocks and bonds. It is planned that the road shall be in operation within two years.

The Atlanta & Anderson Railway is designed to connect at Anderson with the Piedmont Northern lines, which run from there to Spartanburg, S. C., and planned to finally connect through to Charlotte, N. C., whence it is said a Northern and Eastern extension will finally be built—if expectations are realized—to Norfolk, Va.

Virginian Railway Coal Pier to Be Enlarged.

Contracts have been let by the Virginian Railway Co. for additions to its large coal pier at Sewalls Point, Norfolk, Va., at a cost of \$750,000. The work will be done under the supervision of H. Fernstrom, chief engineer of the company, and will provide facilities for loading 3600 tons more coal per hour. The additions will include a car dumper, an elevator, track scales, six conveyor cars, an additional electric motor of 500 volts and structural steel construction between the elevator and coal piers, and a yard for storage of empty cars.

The car dumper, operated by electricity, will have a capacity of 152 tons. Road cars will be handled by electric mule haulage from the tracks to the car dumper, both electric features to have a capacity of not less than 30 dumpings per hour. The conveyor cars, with a capacity of 120 tons each, will likewise be operated by electricity, these to be weighed at the scales. Elevator will be of capacity to correspond with the rest of the equipment.

Contracts have been awarded as follows: Wellman-Seaver-Morgan Company of Cleveland, O., car dumper, elevator and conveyor cars; Straight Scales Co., Kansas City, Mo., track scales; General Electric Co., Schenectady, N. Y., electrical equipment; Virginia Bridge & Iron Co., Roanoke, Va., structural steel; John Pettyjohn & Co., Lynchburg, Va., concrete foundation, etc.

Operates Street Railways and Other Utilities.

The American Power & Light Co., which operates through subsidiaries public utilities in 30 important cities and towns in Texas, Kansas, Washington, Oregon and Idaho, 18 of these being in Texas alone, has issued its annual report for 1916. Altogether there are 164 communities served, the total population being 1,092,200. The gross earnings were \$1,236,757 for the year; expenses, \$306,681; net earnings, \$930,076; net income after deducting interest and discounts, \$557,840; total net income, \$746,651; balance surplus for the year after payment of dividends, \$204,643. Total combined surplus, \$1,632,284. The Texas points served include Fort Worth, Galveston, Waco, El Paso, Denison, Sherman, Paris and many other places. F. G. Sykes, New York, is president.

New President of Texas & Pacific Railway.

At the organization meeting of the Texas & Pacific Railway Co. in New York this week George J. Gould resigned as chairman of the board and Wm. Church Osborn was elected in his place. J. L. Lancaster of New Orleans, who has been vice-president, was elected president, succeeding George J. Gould, who also held that post, and Kingdon Gould, vice-president. It is said that these changes were suggested by Mr. Gould, who will continue to be a director. The other officers were re-elected.

I. M. Griffin has been appointed freight traffic manager at Dallas, Tex. He was formerly assistant freight traffic manager, and he will be succeeded in that post by John B. Payne, who has been general freight agent.

Will Operate With Storage Battery Cars.

The West Coast Electric Railway, which is planned to be built from Tampa to Venice, Fla., 68 miles, by E. M. Raymond, president, 1323 Land Title Building, Philadelphia, Pa., and A. E. Townsend, general manager and chief engineer, Sarasota, Fla., is to be operated with Edison storage battery cars. The route is not yet fully determined. It may be either via the bayshore or via Parish.

Good Roads and Streets

SOUTHERN HIGHWAY ACTIVITIES.

Details in regard to road and street undertakings and bond issues, briefly mentioned below, are given under the proper headings in our "Construction Department" and "New Securities," published elsewhere in this issue.

Bonds Voted.

Attalla, Ala.—City has voted \$11,000 bonds for street and other improvements.

Clanton, Ala.—Chilton county has voted \$200,000 bonds for constructing roads.

Easley, S. C.—City has voted \$25,000 bonds for paving streets and sidewalks.

Newberry, S. C.—Newberry county, No. 4 township, has voted \$40,000 bonds for building highways.

Pittsboro, N. C.—Chatham county, Williams township, has voted \$30,000 bonds for road construction; Baldwin township will issue \$30,000 bonds for building roads.

Port Gibson, Miss.—Claiborne county authorized \$40,000 bonds for road and bridge construction.

Bonds to Be Voted.

Edgard, La.—St. John the Baptist parish will vote in June on \$180,000 bonds for building highways.

Hampton, Va.—Elizabeth City county, Wythe district, will vote May 19 on \$50,000 bonds for building roads.

Martinsburg, W. Va.—City votes May 8 on \$115,000 bonds for paving streets with brick and asphalt macadam.

Opelousas, La.—St. Landry parish votes June 5 on \$500,000 bonds for constructing 96 miles of roads.

Perry, Fla.—City will vote May 15 on \$75,000 bonds for paving streets.

Princeton, Ky.—Caldwell county will vote May 28 on \$225,000 bonds for road construction.

Contracts Awarded.

Baltimore, Md.—State Roads Commission awarded \$73,000 contract for constructing 3½-mile road and \$55,000 contract for constructing 3-mile road.

Centerville, Tenn.—Hickman county awarded contract for constructing 150 miles of macadam roads.

Erwin, Tenn.—City awarded \$45,000 contract for asphalt paving.

Eureka Springs, Ark.—Carroll county awarded \$51,000 contract for road construction.

Hereford, Tex.—City awarded contract for 12 blocks of asphaltic-concrete pavement.

Marietta, Ga.—City voted \$48,000 contract for vitrified brick paving.

Norfolk, Va.—City awarded contract for asphalt and wooden block paving to cost \$80,000.

Plainview, Tex.—City awarded \$120,000 contract for vertical fiber brick paving.

Sapulpa, Okla.—City awarded \$68,000 contract for street paving.

Sherman, Tex.—City awarded contract for paving to cost \$53,000.

Thomasville, N. C.—City awarded contract for sidewalk paving to cost \$16,000.

Contracts to Be Awarded.

Alexandria, La.—Rapides parish asks bids until May 26 for 15 miles of road improvements.

Beaufort, S. C.—City invites bids until May 10 for constructing 13,000 square yards of cement-concrete, bitulithic or Warrenite paving, with curb and gutters.

Cumberland, Md.—City invites bids until April 30 for 23,600 square yards of cement-concrete paving, 930 square yards of wood block paving, 6100 square yards of brick paving, 14,140 linear feet of concrete curb, etc.

Edenton, N. C.—City invites bids until May 7 for constructing 25 miles of asphalt, concrete on brick pavement, with curbing and storm drainage.

Lenoir, N. C.—City invites bids until April 30 for 35,000 square yards of street paving, 10,000 square yards of sidewalk paving, 1300 square yards of concrete gutter, etc.

Lewisburg, W. Va.—Greenbrier county receives bids until May 1 for 17 miles of macadam road construction.

Lexington, Miss.—Holmes county receives bids until April 30 for 13 miles of road construction.

Palatka, Fla.—Putnam county receives bids until May 25 for constructing 29 miles of roads.

Tavares, Fla.—Lake county invites bids until May 7 for constructing 121,000 linear feet of roadway.

Texarkana, Ark.—Miller county highway and bridge district invites bids until May 10 for constructing 130 miles of highway.

Walnut Ridge, Ark.—Lawrence county road improvement district No. 2 receives bids until May 1 for constructing 5½ miles of macadam road.

Wellsburg, W. Va.—Brooke county invites bids until May 24 for constructing 15 miles of highway.

Route of Bankhead Highway Selected at Birmingham Road Convention.

Birmingham, Ala., April 21—[Special.]—Plans to select an official route for the Bankhead highway, which runs from Washington, D. C., to Little Rock, Ark., were perfected during a four-day session of the United States Good Roads Association and the Bankhead National Highway Association, held in Birmingham April 17 to 20, and arrangements have been made for a pathfinding tour over various proposed routes to be made within 30 days.

More than 400 delegates, representing 20 States, were present at the sessions of the two associations, and some of the leading good-roads officials of America attended. United States Senator John H. Bankhead, Alabama, is president of the United States Good Roads Association, and presided at the sessions here. Former Congressman Thomas S. Plowman of Talladega, Ala., is president of the Bankhead Highway Association.

Resolutions tendering to President Wilson the support of the two associations in any movements looking to the improvement of the trunk highways were adopted and sent to the President. A great "good roads and preparedness" parade was held in Birmingham on April 19, "Liberty Day," and a mass-meeting of citizens was held Thursday night in Capitol Park and heard speeches delivered by several delegates to the good-roads meeting, including Governor Charles H. Brough of Arkansas, Governor Charles Henderson of Alabama, United States Senator Oscar Underwood of Alabama and A. E. Batchelder, executive of the American Automobile Association.

Two interesting speeches were read to the delegates, one written by Charles H. Davis, Cambridge, Mass., president of the National Highways Association, and the other by E. J. Watson of Columbia, S. C., vice-president of the United States Good Roads Association. Mr. Davis was unable to be present because of other engagements, and Mr. Watson was unable to come because of illness.

The committee on rules recommended that the Bankhead Highway, from Washington, D. C., to Atlanta, Ga., be designated as follows:

Washington to Lynchburg, Va.; to Danville, Va.; to Reidsville, N. C.; to Greensboro, to Charlotte, N. C.; to Gaffney, S. C.; to Spartanburg, to Greenville, S. C.; to Athens, to Winder, to Atlanta, Ga.

From Atlanta westward to Little Rock it was designated as follows:

Atlanta to Austell, Ga.; to Anniston, Talladega, Pell City, Leeds, to Birmingham, to Jasper, Ala.; to Holly Springs, Miss.; to Memphis, Tenn.; to Little Rock, Ark.

The inspection committee shall be composed of persons who shall be named by the location committee, and those who serve on the inspection committee must live east of Atlanta, Ga., according to the recommendations of the committee.

Senator Bankhead was re-elected president of the United States Good Roads Association; Governor Chas. H. Brough, Arkansas, first vice-president; E. J. Watson, Columbia, S. C., second vice-president; John W. O'Neill, Birmingham, Ala., third vice-president, and J. A. Rountree, Birmingham, Ala., secretary and treasurer.

Several exhibits of road-building machinery, automobile trucks, road-building materials and drain pipes were shown in the hall during the session. The motor road-building machines attracted much attention.

Directors of the association were elected as follows:

Alabama—Gov. Charles Henderson; F. A. Gullledge, Verbena.
Arizona—Del M. Potter, Clifton; B. F. Billingsley, Duncan.

Arkansas—J. E. Bodman, Little Rock; O. N. Killough, Wynne.

California—S. Eugene DeRackin, Imperial.

Florida—D. C. Gillett, Tampa; J. Walker Pope, Winter Park.

Georgia—M. J. Abney, Athens; T. E. Patterson, Griffin.

Indiana—A. R. Erskine, South Bend.

Illinois—W. K. Phillips, Metropolis; C. F. Jamison, Chicago.

Kansas—Gov. Arthur Capper.

Kentucky—P. L. Atherton, Louisville.

Louisiana—R. H. Downman, New Orleans; W. E. Monroe, Delhi.

Mississippi—J. A. Carr, Hattiesburg; George F. Grayson, Biloxi.

Missouri—E. W. Major, Sedalia.

Nevada—James T. Goodin, Lovelock; Graham Sanford, Reno.

Nebraska—William Stull, Omaha.

New York—John H. Gordon, Albany; Hampton D. Ewing, New York.

North Carolina—C. M. Vanstony, Greensboro.

Michigan—Harry M. Jewett, Detroit.

Oklahoma—E. W. Marland, Ponca City; R. W. Dick, McAlester.

Pennsylvania—S. Jones Phillips, Kennett Square.

South Carolina—Reld Whitford, Charleston; F. Horton Colcock, Bluffton.

Tennessee—John Howe Peyton, Nashville; J. J. Gray, Rockdale.

Texas—H. B. Terrel, Austin; Charles B. Munday, Marlin.

District of Columbia—A. G. Batchelder, Washington.

Contract for 150 Miles of Roads.

Contract has been awarded for the road construction for which the Hickman county commissioners, Centerville, Tenn., recently invited proposals. The amount available for expenditure is \$225,000, and the contract provides for building 150 miles of macadam roads.

Paving Brick Manufacturers to Meet.

The Institute of Paving Brick Manufacturers will hold its next convention in St. Louis, Mo., May 8 and 9. Arrangements for this meeting are being made by Secretary H. H. Macdonald, 830 Brotherhood of Locomotive Engineers Building, Cleveland, O.

For 35 Miles of Highway.

Thirty-five miles of highway will be constructed by the Wood county commissioners, Whitman, Tex., and the bids are now being considered. The county has \$150,000 available for expenditure for these improvements.

Street Paving to Cost \$120,000.

Contract has been awarded for street paving for which bids were recently invited at Plainview, Tex. It will cost \$120,000, and will be vertical fiber brick, with four-inch concrete base.

To Vote on \$225,000 Bonds.

Highway construction costing \$225,000 is planned by the Caldwell county commissioners, Princeton, Ky., and an election to vote on bonds for that amount has been called for May 28.

Paving Contract Awarded at \$68,727.

Nineteen blocks of streets at Sapulpa, Okla., will be paved, and the contract has been awarded at \$68,727.

Big Sulphur Development Reported.

Dispatches state that C. G. Dawes, the well-known capitalist of Chicago, is the principal in a corporation which has been organized with an authorized capitalization of \$12,000,000 and a paid-in capital of \$6,000,000 for developing Louisiana sulphur deposits. The properties to be developed are said to be adjacent to the holdings of the Union Sulphur Co. in Calcasieu parish, and it is understood that the construction of a large plant, using the steam process, will be at once begun for mining and preparing sulphur for market.

Mr. Dawes was United States Comptroller of the Currency under President McKinley, and is largely interested in the Caddo oil fields of Louisiana.

TEXTILES

New Types of Dyes Demonstrated.

Marietta, O., April 18—[Special.]—A demonstration of some new types of dyewood extracts was given last week at the plant of the Obex Company, Marietta, O., before a number of representatives of Southern cotton mills and Eastern dye consumers who had been especially invited for the occasion.

Previous to the demonstration President G. A. La Vallee of the Obex Company outlined the object of the meeting and gave a short history of the accomplishments of the company in the production of dyes. This organization was originally planned as an experimental laboratory for the textile industry, working primarily upon waterproofing problems. Later the laboratory worked out a logwood black dye for cotton and decided to manufacture logwood extracts, and arrangements were made with the National Gum & Mica Co. of New York to handle this output. The extract plant was completed in April of last year, and the first shipment was made last May. In July it was found necessary to double the capacity of the original plant, and in August the company started the manufacture of hematine for wool and silk. Business continued to grow, necessitating the construction of an additional plant, which was started last November, and at which time I. Spencer Clope was engaged as research chemist and complete laboratories for research work were added.

In January of this year the capital stock of the company was increased to \$500,000, and it started to manufacture solid and crystal logwood for export. Last month the research department perfected a dyestuff for cotton, wool and silk, and this demonstration was arranged to show to those using dyestuffs the character and quality of dyes which the company had developed.

The two plants of the company have a daily capacity of 30,000 pounds of 51-degree extract, and in the last 10 months have shipped 1,861,516 pounds of this product.

After Mr. La Vallee had explained the growth and development of this industry, Mr. Clope, the research chemist, conducted a series of demonstrations and explanations covering the possibilities of the dyes made by the company. Tests were given of dyed articles, especial attention being paid to the company's "Direct Black" dye, which was developed by their chemist. Fourteen samples of silk, wool, cotton and raw cotton, all of which had been dyed by the company's products, were exhibited.

Following the technical explanation of the development of the company's dye products, the meeting was thrown open for discussion by the visiting cotton mill and dye men to give them a clear understanding of the quality and scope of dyes made by the company.

Among those attending the demonstration were representatives of the Swift Manufacturing Co., Columbus, Ga.; the Eagle-Phoenix Mill, Columbus, Ga.; the Southern Dyestuffs & Chemical Co., Charlotte, N. C.; the National Gum & Mica Co., New York city, and the National Aniline & Chemical Co., New York city.

For Bleached Cotton Products.

Chattanooga (Tenn.) investors will build a plant for the manufacture of bleached cotton products. They are Mercer Reynolds, Geo. M. Guild, L. C. Smallwood, H. W. Spencer and Murray Raney, who have incorporated the Lookout Bleaching Co. with a capital of \$75,000.

Textile Notes.

Ellsworth & Co., New York, have leased building at Lagrange, Ga. They will remodel the structure and install an equipment of machinery for spinning silk.

Wm. Elliott, James H. Fowles and E. M. Mullins, all of Columbia, S. C., have incorporated the Santee Mills of Orangeburg, S. C., the capital being \$225,000.

Contract has been awarded to T. C. Thompson & Bros., Birmingham, Ala., for erecting a 125x100-foot addition to No. 3 building, under construction, of the Meritas Mills at Columbus, Ga. The Birmingham firm also has contract to build a two-story 90x90-foot fireproof construction office addition, with sprinkler system, for the Meritas company.

Construction Department

IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the post-office will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

BRIDGES, CULVERTS, VIADUCTS

Ala., Birmingham.—St. Louis & San Francisco R. R., V. K. Hendricks, Engr., St. Louis, will construct 175 steel bridges to replace wooden structures; construct lift-span type bridge across Warrior River at Cordova, estimated to cost \$350,000.

Ala., Cordova.—St. Louis & San Francisco R. R., V. K. Hendricks, Engr., St. Louis, will construct bridge, lift-span, across Warrior River; estimated cost \$350,000. (See Ala., Birmingham.)

Fla., Palatka.—Putnam County Comms., R. J. Hancock, Clerk, will construct 2 reinforced concrete bridges and 5 reinforced concrete culverts; bids until May 25. See Road and Street Work. (See Machinery Wanted—Road and Bridge Construction.)

Fla., Tampa.—West Coast Electric Ry., A. E. Townsend, Chief Engr., Sarasota, Fla., will erect 3 steel bridges (about 1 ml. long) in connection with 68 ml. railway, between Tampa and Venice.

Fla., Tavares.—Lake County Comms. will reconstruct 700-lin. ft. bridge at Browns Ford, in connection with road construction, Howey Special Dist.; bids until May 7. See Road and Street Work. (See Machinery Wanted—Road Construction.)

Ga., Augusta.—City let contracts to T. M. Trowbridge, Augusta, at \$4064 for building reinforced concrete bridge over second level of Jackson Street canal.

N. C., Gastonia.—Gaston County Comms., Gastonia, and Mecklenburg County Comms., Charlotte, let following contracts for bridge construction: Virginia Bridge & Iron Co. of Roanoke at \$36,859 to construct bridge at Mount Holly, and at \$38,467, bridge at Rozzell's Ferry; C. W. Requaugh Co. of Asheville at about \$50,000 to complete concrete bridge at Sloan's Ferry. (Lately noted in-viting bids.)

Okla., El Reno.—Farmers & Merchants' Bridge Corp., capital \$12,000, chartered by M. B. Cope, L. K. Butts and G. L. Beckton.

Tenn., Knoxville.—City authorized John W. Flenniken, City Commr., to negotiate for constructing viaduct across Southern Railway at Broadway.

W. Va., Martinsburg.—City votes May 8 on \$10,000 bonds to construct and maintain bridge over tracks and yards of Baltimore

& Ohio R. R. and Tuscarora Creek at Martin St. P. W. Letter, Mayor.

CANNING AND PACKING PLANTS

Fla., Earleyville.—Commercial Groves Co. of Florida, L. F. Vaught, Prest., and C. J. Early, Treas.-Mgr., 435 Main St., Bradenton, Fla., will erect 100x200-ft. and 70x125-ft. buildings; mill construction; install electric generator for light and power in packing-house; steam heat for manufacturing; daily capacity 5 cars packed fruit and 36,000 jars marmalade; now manufacturing marmalade and jellies at Manatee, Fla. Lately noted organized. (See Machinery Wanted—Jelly and Preserving Machinery.)

Ga., Atlanta.—American Canning Corp. leased 6-story building at 78 Auburn Ave.; will equip as cannery and canning school.

Ky., Owensboro.—Dyer-Guenther Canning Co., capital \$10,000, inceptd. by W. H. Dyer, J. E. Guenther and E. D. Kerr.

La., New Orleans.—Morris & Co. (New York office, 55 Liberty St.) will establish \$250,000 branch plant, to include cold-storage facilities and department to handle pork products. (Lately noted to have purchased Crescent City Slaughter-house Co.'s plant for \$500,000 and as proposing improvements to increase facilities for slaughtering and packing meat.)

N. C., Marion.—Marion Preserving Co. organized by C. S. Briggs, J. F. Conniffe, J. E. Decker and others; build canning and preserving plant.

N. C., Shelby.—Board of Trade, I. C. Griffin, Secy., plans organization to erect cannery. (See Machinery Wanted—Canning Machinery.)

Tenn., Knoxville.—American Products Co. of Maryville, Tenn., is considering establishment of cannery.

Tex., Aubrey.—R. L. McReynolds will establish commercial cannery.

Tex., Corpus Christi.—Corpus Christi Fish & Oyster Co., organized by J. B. Oatman and P. O. Cox; capital stock \$25,000; secured lease on city wharf property; erect building and install machinery to can shrimp, fish, oysters and vegetables. (Lately noted.)

CLAYWORKING PLANTS

Va., Richmond.—Bricks.—Chesterfield Brick Co., capital \$25,000, inceptd.; W. P. Forbes, Prest.; W. G. Hockaday, Secy.

COAL MINES AND COKE OVENS

Ala., Birmingham.—Frank Nelson, Jr., and Leo K. Steiner purchased properties of Burnwell Coal Mining Co. and Samoset Coal Co.; improve and increase capacity of 2 mines to 1000 tons daily.

Ala., Montevallo.—Montevallo Mining Co. plans to install continuous coal conveyor to increase daily output 200 tons.

Ky., Clay County.—John Q. Dickinson, Prest. Kanawha Valley Bank, Charleston, W. Va., purchased coal lands.

Ky., Frankfort.—Lenox Bituminous Coal Co. inceptd., capital \$50,000, by H. M. Collins, C. F. Dunn and Frank Chinn.

Ky., Hazard.—Kentucky River Coal Mining Co., capital \$100,000, inceptd. by A. H. Whitsett, R. C. Whitsett, W. H. Miller and others; develop coal mines in Perry county.

Ky., Hombre.—Hombre Coal Co., 312 Fayette Bank Bldg., Lexington, Ky., organized; C. A. Howard, Versailles, Ky., Prest.; J. A. Myers, Pickard, Ky., V.-P.; D. J. Howard, Versailles, Secy.; E. L. Mitchell, Mortonsville, Ky., Treas.; M. G. Yingling, Mgr.; develop 470.31 acres; daily capacity 500 tons; open mining machinery bids April 25; electric plant; Arthur L. Ware, Hazard, Ky., Constr. Engr. Lately noted inceptd., capital \$35,000. (See Machinery Wanted—Motor; Cutter.)

Ky., Ice.—Cassell Draper West Coal Co., capital \$24,000, inceptd. by H. W. West, K. M. West, R. E. Sell and others, all of Charleston, W. Va.

Ky., Pineville.—Tanyard Hill Coal Co., capital \$25,000, inceptd. by A. B. Culton, L. E. Hurst and Calvin Hurst.

Ky., Prestonsburg.—Salt Lick Coal Co., capital \$15,000, inceptd. by W. S. Wells, I. T. Craft and J. K. Wells.

Ky., Whitesburg.—Whitesburg Coal Co., capital \$60,000, inceptd. by J. H. Hall, W. H. Courtney and W. H. Hoover.

Ky., Whitesburg.—West Draper Coal Co. will develop coal properties.

Ky., Williamsburg.—Meadow Branch Coal Co., capital \$5000, inceptd. by R. L. Pope, E. E. Prichard and G. C. Croley.

Okla., McCurtain.—McCurtain Coke Co. (lately noted inceptd.) organized; main office, Fort Smith, Ark.; R. D. Martin, Prest., El Reno, Okla.; S. C. Awbrey, V.-P., El Paso, Tex.; O. W. M. Miller, Secy.-Treas., First National Bank Bldg., Fort Smith; leased and will remodel old ovens; battery of 200; beehive; daily capacity 250 tons; daily output of mines, 2000 tons coal; manufacture furnace and foundry coke; H. O. Lewis, Engr., Fort Smith; will add coal crusher, coal conveyor, etc. (See Machinery Wanted—Conveyor; Crusher; Coke Oven Supplies; Locomotives; Cars; Steam Shovel.)

Tenn., Chattanooga.—Didenburg Coal & Coke Co., capital \$100,000, inceptd. by Frank Herndon, J. W. Hawley, C. A. Briggs and others.

Tenn., Dayton.—Evansville Coal & Coke Co., capital \$10,000, inceptd. by E. B. Thomason, J. T. Darwin, S. L. Darwin and E. M. Thomason.

Tenn., Dayton.—Evansville Coal & Coke Co., capital \$10,000, inceptd. by E. N. Thomason, J. T. Darwin, S. L. Darwin and E. M. Thomason.

Tenn., Jacksonville.—Whiteley-Jellico Coal Co., capital \$10,000, inceptd. by J. L. Slusher, Harry Oelriche, Jack Caldwell and others.

Tenn., Knoxville.—Weaver Coal Co., capital \$3000, inceptd. by E. E. Weaver, J. P. Matlock, S. L. Proffitt and others.

Tenn., Memphis.—Galloway.—Eberhart Coal Co., increased capital from \$30,000 to \$50,000.

W. Va., Adrian.—Fairmont & Masontown Coal Co. organized; J. W. Poling, Prest.; W. T. Hughes, V.-P.; W. D. Reed, Secy.-Treas.; office at 14 Fleming Bldg., Fairmont, W. Va.; will develop 571 acres; daily capacity 250 tons; S. A. Shuttlesworth, Constr. Engr. (Lately noted inceptd.)

W. Va., Beckley.—Viacova Smokeless Fuel Co. organized; A. A. Lilly, Prest.; Wesley Wilkes, V.-P.; G. C. Hedrick, Secy.-Treas.;

C. P. Phillips, Mgr.; develop 500 acres; capacity not yet estimated; H. F. Wilfong, Beckley, Constr. Engr. Lately noted inceptd., capital \$75,000. (See Machinery Wanted—Mining (Coal) Equipment.)

W. Va., Clarksburg.—Valley Falls Fuel Co., capital \$100,000, inceptd. by C. E. Pool, R. L. Pool, D. T. Quinn and others.

W. Va., Clarksburg.—J. H. Williams Coal Co., capital \$25,000, inceptd. by J. H. Williams, L. C. Crile, E. C. Reep and others.

W. Va., Davis.—Black Water Coal Co., capital \$25,000, inceptd. by A. L. Hedrick, D. E. Cuppett and H. F. E. Heinbaugh of Thomas, W. Va., and others.

W. Va., Elk Garden.—Mapleville Coal Co., capital \$200,000, inceptd. by O. D. Harris, M. W. Harris, J. R. Norman and others.

W. Va., Fairmont.—Scotts Run Coal Co., capital \$10,000, inceptd. by Henry L. Murphy, T. B. Henderson, Robin A. Hood and others.

W. Va., Huntington.—Rich Block Coal Co., capital \$50,000, inceptd. by S. A. Draper, J. S. Vaughn, L. M. Flint and others.

W. Va., Huntington.—Hardy-Burlingham Mining Co., capital \$300,000, inceptd. by P. H. Burlingham, Wm. Burlingham, both of Cincinnati, Ohio, and Paul Hardy, Huntington.

W. Va., Julian.—United States Block Coal Co., capital \$50,000, inceptd. by Harvey W. Shelton, M. C. Jennings, W. H. Tideman and others of Huntington, W. Va.; develop coal mines near Julian.

W. Va., Kingwood.—American Fuel Co., Jas. W. Flynn, Prest. and Gen. Mgr., will develop 12 acres; daily capacity 500 tons; install drum, incline plane, locomotive and steam shovel, cost about \$30,000. (Lately noted inceptd., capital \$30,000.)

W. Va., Logan.—Daisy Coal Co., capital \$50,000, inceptd. by W. C. McCall and R. L. Shrewsbury of Logan, S. B. Robertson of Huntington, W. Va., and others.

W. Va., Logan.—Jones-Winifrede Coal Co., capital \$5000, inceptd. by H. C. Jones, E. H. Butts, Naaman Jackson and others.

W. Va., Logan.—McConnell Coal Co., capital \$5000, inceptd. by Albert L. Hinchman, Robt. E. Lee, Guy E. Shippe and others of Aeneid, W. Va.

W. Va., Sutton.—Pittsburgh Split Coal Co., capital \$25,000, inceptd. by A. J. Salzer, A. L. Morrison, E. T. Morrison and others.

COTTON COMPRESSES AND GINS

Ark., Fort Smith.—Lesser-Goldman Cotton Co., 112 S. Main St., St. Louis, Mo., advises Manufacturers Record: Plans for erection of cotton compress at Fort Smith too embryonic to announce details. (Lately noted as purchasing site for new cotton compress and 4 warehouses.)

La., Shreveport.—T. H. Thurmond, Texas and Commerce Sts., will erect \$5000 fireproof building for air blast system cotton gin and install machinery, all under own supervision; purchased machinery, cost \$15,000; daily capacity 250 bales. (Lately noted.)

N. C., Elizabeth City.—N. W. Poyner and J. J. Evans will install cotton gin and sawmill; purchased equipment.

Okla., Quinton.—Quinton Gin Co. inceptd. by J. C. Shelton, C. M. Brown and J. T. Courts.

Tex., Columbus.—Columbus Gin & Milling Co., capital \$5000, inceptd. by Geo. Gegenworth, Henry Seifert and John T. Walker.

DRAINAGE SYSTEMS

Ark., Conway.—Tupelo Drainage Dist. Comms. let contract Blodgett Construction Co. of Kansas City, Mo., at \$12,000 for additional drainage construction; 3 ml. of ditching.

La., Abbeville.—Coulee-Kinney Drainage Dist. voted \$48,000 bonds to construct drainage system. Address Drainage Comms.

Mo., Cape Girardeau.—Little River Drainage Dist. will construct scraper ditches; 4 ft. bottom; average depth 6 ft.; 69,000 cu. yds. excavation; bids until May 15; Wm. A. O'Brien, Chief Engr.; Isham Randolph, Consit. Engr., 1827 Continental Bank Bldg., Chicago. (See Machinery Wanted—Drainage System.)

ELECTRIC PLANTS

Ark., Greenwood.—Fort Smith Light & Traction Co., D. C. Green, V.-P. and Gen. Mgr., Fort Smith, Ark., will construct 30-ml.

transmission line, to supply Huntington and Greenwood, from Fort Smith plant; all materials contracts closed; construction under supervision of H. M. Bylesby & Co., Chicago. (Lately noted.)

Ark., Huntington.—Fort Smith Light & Traction Co., Fort Smith, Ark., will construct transmission line to supply Huntington from Fort Smith plant. (See Ark., Greenwood.)

D. C., Washington.—J. J. Moebis, 217 Colorado Bldg., will erect electric service-station at 1828 L St. N. W.; cost \$15,000.

Fla., Cocoa.—Cocoa Light & Ice Co. contemplates installing generating equipment for 24-hour service.

Ky., Elkhorn.—M. Bolling and others plan company to construct electric-light and power plant; cost \$15,000.

Mo., Aurora.—City will vote on \$25,000 bonds to install electric-light plant. Address The Mayor.

Mo., Booneville.—Kemper Military School is having plans prepared for improvements to power-house, include additional boilers and generators.

Mo., Kirksville.—City is having plans prepared for improvements to electric-light plant and water-works; cost \$118,000; will vote on bonds May 4; install 2 motor-driven pumps, two 200 H. P. oil engines and generators, extend coal line, construct 27,250 ft. 12-in. pipe line, etc.; Stevens Hall, Engr.

Mo., La Plata.—City votes April 27 on bonds to construct electric plant. Address The Mayor.

Mo., Mine La Motte.—Missouri Metals Corp. let contract to Unit Construction Co., Title Guaranty Bldg., St. Louis, to erect power-house; about 150x60 ft.; reinforced concrete construction; install Diesel engines.

N. C., Salisbury.—City will construct 6-mi. 13,000-volt transmission line; Water Commrs., W. H. Woodson, Chrmn., receive bids until April 30; J. L. Ludlow, Consit. Engr., Winston-Salem. (See Electric Transmission System.)

Okla., Carmen.—City voted \$25,000 bonds to construct electric-light plant. Address The Mayor.

Okla., Custer.—City contemplates extending electric-light system to supply farms. Address The Mayor.

Okla., Haskell.—Central Oklahoma Light & Power Co. has franchise to distribute electricity for light, heat and power.

Okla., Mangum.—City retained Benham Engineering Co., Colcord Bldg., Oklahoma City, to appraise privately-owned lighting plant and to make estimate of cost of new municipal light plant.

Okla., Okemah.—City, J. B. Poynter, Mayor, contemplates vote on \$20,000 bonds to improve electric-light plant; Benham Engineering Co., Consit. Engr., Colcord Bldg., Oklahoma City.

Okla., Stratford.—City voted \$2000 bonds to construct electric-light system. Address The Mayor. (Lately noted.)

Okla., Wapanucka.—City contemplates improvements to electric-light plant and water-works. Address The Mayor.

Tex., Donna.—Donna Light & Power Co., H. C. Davis, Mgr., will construct electric plant to cost \$5000; 5 mi. transmission; open construction bids about May 1; all contracts for material and construction practically decided. (Lately noted inceptd., capital \$5000.)

Va., Chilhowie.—Chilhowie Light & Power Co., J. D. Tate, Prest., will install electric system; electricity to be supplied by Appalachian Power Co. (See Machinery Wanted—Electrical Equipment.)

FLOUR, FEED AND MEAL MILLS

Ga., Bowdon.—Bowden Feed Mill Co. organized; H. J. Reaves, Prest.; G. W. Burson, V.-P.; W. T. Beck, Secy.-Mgr.; erect 2-story 50x60-ft. fireproof building; purchased machinery; produce feed for cattle and horses. (Lately noted.)

Ga., Crawfordville.—F. C. and T. N. Chapman will install feed mill; purchased equipment.

Ga., Grantville.—J. R. Cole & Co. of Newnan, Ga., contemplate establishing feed mill.

Ga., Moreland.—J. R. Cole & Co. of Newnan, Ga., contemplate establishing feed mill.

Ga., Senola.—J. R. Cole & Co., Newnan, Ga., contemplate establishing feed mill.

Tex., Columbus.—Columbus Gin & Milling Co., capital \$5000, inceptd. by Geo. Gegenworth, Henry Seifert and John T. Walker.

Tex., Sherman.—G. B. R. Smith Milling Co. let contract to Lehrack Contracting & Engineering Co., Kansas City, Mo., H. C. King, Supt. at Sherman, to erect 8-story concrete, glass and brick mill building; 100x40-ft.; cost \$75,000; install machinery for daily capacity 600 bbls. flour; cost \$25,000. (Noted in Dec., 1916, to build this mill, also grain elevator to cost \$75,000.)

Va., Altavista.—C. J. Blair, C. A. and J. H. Pritchett of Danville will build grist mill and 100-bbl. flour mill.

W. Va., Marlinton.—Peoples Store & Supply Co. will build flour mill; 2 stories and basement; midget type mill with daily capacity 25 bbls.; purchased equipment.

FOUNDRY AND MACHINE PLANTS

Ky., Louisville.—Foundry.—Dow Wire & Iron Works advises Manufacturers Record: Considering manufacture of malleable castings in our foundry; plan installing small oven to anneal castings. (See Machinery Wanted—Annealing Oven.)

Ky., Louisville.—Tank Cars, Etc.—Louisville Car & Foundry Co., Floyd and G Sts., organized; Chas. Schimpeler, Prest.; C. H. Schimpeler, V.-P.; Henry Schimpeler, Secy.; purchased Gateway Car Co. plant; will make additions; increase capital to \$60,000; build tank cars; rebuild and repair railroad equipment. (Lately noted inceptd., capital \$10,000.)

S. C., Bayboro.—Machine Shop.—Bayboro Shop Co. chartered with \$10,000 capital; A. Bell, Prest.; F. T. Bell, V.-P.; J. E. Bell, Secy.-Treas.

H. C. Williams, Aurora, Ind.; E. W. Crispin, J. M. Horless, both of Gulfport, Miss., and W. H. Pelacz, Biloxi, Miss.

Mo., Kansas City.—Success Oil & Gas Co., capital \$100,000, inceptd. by J. E. Waddill, C. H. Lyons and J. B. Cannon.

Mo., Kansas City.—Oil Refinery.—Progress Oil & Refining Co. inceptd., capital \$1,000,000, by Jas. R. Smith, Harry W. Jones, both of Independence, Kans., and Merle V. Cadman, Tulsa, Okla.

Okla., Ardmore.—Heraldton-Fox Petroleum Co., capital \$50,000, inceptd. by W. B. Poland and others.

Okla., Boynton.—Oil Refinery.—Mayor Refining Co., capital \$25,000, inceptd. by Guy L. Hoover and Jno. E. Ryberg of Cushing, Okla., and H. P. Downs of Tulsa, Okla.

Okla., Coalgate.—Goose Creek Oil & Gas Co. inceptd. with \$15,000 capital by T. E. Wilhelm and others.

Okla., Chickasha.—Murdock Oil & Gas Co. inceptd. with \$25,000 capital by J. P. Wolverton and others.

Okla., Enid.—Buffalo Oil & Gas Co., capital \$250,000, inceptd. by O. E. Criswell, H. S. Kohlbusch and B. H. Woodring, all of Lamont, Okla.

Okla., Enid.—Coweta Consolidated Oil Co., capital \$500,000, inceptd. by Geo. F. Southard and H. G. McKeever of Enid, and F. V. Wright of Lawton.

Okla., Muskogee.—Ok-Ky Oil Co., capital \$20,000, inceptd. by M. G. Haskell and others.

Okla., Newkirk.—Oil Refinery.—Dilworth Oil & Refining Co., capital stock \$1,000,000, will erect refinery of 5000 bbls. capacity and 2

Okla., Tulsa.—Oil Refinery.—Kingsmith Refining Co., capital \$1,500,000, inceptd. by Thos. Chestnut, T. K. Smith and C. P. Quinlan.

Tenn., Monterey.—Monterey Calf Killer Oil Co., capital \$20,000, inceptd. by E. B. Berry, A. L. Evans, E. S. Jones and others.

Tex., Beaumont.—Spindletop Deep Well Co., capital \$30,000, inceptd. by Geo. W. Hooks, John W. Henderson and L. F. Gilbert.

Tex., Fort Worth.—Metropolitan Oil Co. chartered with \$50,000 capital by W. M. Moore and others.

Tex., Houston.—Acme Petroleum Co. chartered with \$30,000 capital by Mills Bennett, R. H. Allisen, both of Houston, and J. E. Josey of Beaumont, Tex.

Tex., Houston.—U. S. Gun Oil Co., 219 La Branch St., organized; A. L. Dickinson, Prest.; E. T. Dickson, V.-P. and Treas.; J. M. Johnson, Secy.; manufactures oil for cleaning, polishing, etc.; lately noted inceptd., capital \$20,000. (See Machinery Wanted—Oil-manufacturing Supplies.)

Tex., Houston.—Oil Refinery.—D'Artois Oil & Refining Co., Mason Bldg., organized by Geo. J. D'Artois, S. F. Wiles, both of Shreveport, La., and others; build refinery with daily capacity 1200 bbls. oil; equip for refining gasoline, etc.

W. Va., Charleston.—Cabin Creek Oil Development Co., capital \$300,000, inceptd. by C. Neff, E. J. Grace, W. C. Hardy and others.

W. Va., Parkersburg.—West Virginia Consolidated Oil Co., capital \$1,000,000, inceptd. by C. A. Krops, H. W. Russell, H. O. Hiteshew, T. H. Maynes and B. D. Setron.

HYDRO-ELECTRIC PLANTS

Ala., Cordova.—Alabama Power Co. will increase facilities, reported cost being \$1,500,000; Walter N. Wainsley, Gen. Mgr., Birmingham, wires Manufacturers Record: Propose to duplicate 20,000-kilowatt steam plant on Warrior River; will not contract.

ICE AND COLD-STORAGE PLANTS

Ga., Macon.—Raymond Harris of Macon, and W. M. Harris of Hampton, Ga., plan organizing company to establish cold-storage plant for fresh fruits and vegetables.

Miss., Meridian.—City, John M. Dabney, Mayor, contemplates establishment of ice and cold-storage plant; must first vote a charter amendment. (Lately noted to vote on \$60,000 to \$75,000 bonds.)

N. C., Charlotte.—Purity Ice Cream Co., Geo. P. Sacks, Prest., will install ice plant; daily capacity 30 tons and maximum refrigeration of 60 tons. (See Miscellaneous Factories.)

Okla., Erick.—J. S. Hughes contemplates installation of 7-ton raw-water ice plant, with fuel oil engine. (See Machinery Wanted—Ice Machinery.)

Tex., Donna.—H. C. Davis, care of First State Bank, is interested in plan to install pre-cooling and ice manufacturing plant costing \$25,000.

IRON AND STEEL PLANTS

Md., Baltimore.—Steel Furnace.—Hess Steel Corp., Station O, advises Manufacturers Record: Contemplating extension of electric furnace building; Blanke & Zink, Archts., 648 Equitable Bldg., to prepare plans.

W. Va., Charleston.—Armor-plate and Projectile Plants.—Armor-Plate Board, War Department, Washington, D. C., has plans and estimates for armor-plate and projectile plants; details changeable in accordance with site and other conditions; general plans as follows: Open-hearth building, \$385,000, and furnaces, etc., \$1,133,340; forging and cementing shop building, \$714,000, and equipment, \$3,762,500; bending and tempering shop, \$560,000, and machinery, \$1,988,000; machine and erecting shop, \$560,000, and machinery, \$1,326,710; power plant, \$175,000, and machinery, \$538,500; locomotive-house with track and railroad-equipment building, \$14,000, and machinery, \$244,300; office building, \$55,000, and equipment, \$30,000; physical and chemical laboratory building, \$25,000, and equipment, \$49,000; brick shed, \$6000; carpenter shop, \$12,000, and equipment, \$15,000; blacksmith shop, \$25,500, and equipment, \$27,000; storehouse, \$9600, and equipment, \$3900; oxygen-hydrogen plant building, \$9000, and equipment, \$30,000; water supply and sewerage, \$55,000; fire service, \$15,000, etc.; 10 per cent. contingencies and 5 per cent. engineering and supervision increase total estimated cost to \$13,769,563 for plant with annual output 20,000 tons finished armor; understood that construction bids, machinery proposals, etc., will be given early attention. Require more than 200 acres for site; city of Charleston

THE OFFICIAL PROPOSAL ADVERTISEMENTS

Appear This Week On Pages 86, 87 and 88

Notices of bond sales, construction and improvement contracts to be let, equipment and supplies to be purchased, franchises offered, etc., inserted in this department bring bids from the most important bond buyers, investors, financial institutions, contractors, engineers, architects, manufacturers, and supply houses throughout the country.

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Send for booklet of testimonial letters from public officials who have used the PROPOSAL department of the Manufacturers Record, for bond sales, construction work, etc.

Tex., Lufkin.—Machinery.—Lufkin Foundry & Machinery Co. will increase capacity of foundry; cost \$15,000.

GAS AND OIL ENTERPRISES

Ala., Mobile.—Southern Petroleum Development Co., capital \$500,000, inceptd.; John G. Harris, Prest., Newark, N. J.; N. G. Lennington, V.-P. and Treas., Scranton, Pa.; Frank M. Kane, Secy., Scranton, Pa.

Ala., Mobile.—Cap Rock Oil Co. chartered with \$5000 capital by Harry Buschane, Wm. O. Daly and others.

Ark., Fort Smith.—Oil Refinery.—Ozark Refining Co. increased capital from \$50,000 to \$150,000.

Kentucky.—Horse Creek Oil Co., Pennsboro, W. Va., inceptd., capital \$15,000, by J. A. Leggett and others; drill for oil in Jackson and Clay counties; contemplates at least 6 test wells. Lately noted. (See Machinery Wanted—Well-drilling (Oil) Equipment.)

Ky., Nicholasville.—Cooper Creek Oil & Gas Co., capital \$5000, inceptd. by J. A. Geary, N. L. Bronaugh and W. R. Smith.

Ky., Scottsville.—Commonwealth Oil Co., capital \$100,000, inceptd. by B. J. Oliver, T. B. Dixon and H. L. Grooms.

Ky., Winchester.—Liberty Oil & Gas Co., capital \$50,000, inceptd. by J. S. Mullins, H. S. Gilbert, Stoner Ogden and others.

La., Shreveport.—Gasoline.—Hydro-Carbon Co., W. G. Leet, Prest., First National Bank Bldg., advises Manufacturers Record: Probably construct 12 to 15 mi. pipe line to convey casing-head gas from wells; piping 1½-in. to 6-in.; install gasoline plants of 500,000 to 1,000,000 cu. ft. gas daily capacity; now receiving bids on gasoline rendering machinery; decided on first 2 plants; continuing to contract for new wells. Lately noted inceptd., capital \$60,000. (See Machinery Wanted—Gasoline-Rendering Machinery.)

Miss., Gulfport.—Great Eastern Oil & Gas Co., capital \$100,000, inceptd. by Louis Bloom,

casing-head plants; install 2-mi. pipe line, 2 and 4-in. pipe; open piping bids within 60 days; W. H. Blaisdell, Newkirk, Okla., Engr. Lately noted inceptd. (See Machinery Wanted—Refinery (Oil) Equipment.)

Okla., Nowata.—Wilkinson Oil & Gas Co. inceptd. with \$50,000 capital by S. F. Wilkinson and others.

Okla., Nowata.—Oil Refinery.—Nowata Oil Refining Co., capital \$500,000, inceptd. by H. H. McGill, Thos. E. Elliott and H. R. Strother. Okla., Oklahoma City.—Florence Hope Oil & Gas Co., capital \$100,000, inceptd. by A. Brown, W. G. Davis and Ben. K. Davis.

Okla., Perry.—Warren Valley Oil Co., capital \$12,000, inceptd. by W. L. Murray, H. J. Dayton and A. Schwartz.

Okla., Shawnee.—Consolidated Leasing & Drilling Co., capital \$100,000, inceptd. by Roy Jenkins, Pike Baker and C. H. Eckford.

Okla., Tulsa.—Cleet Oil Co., capital \$4000, inceptd. by L. M. Stroud, A. L. Ryan and Randolph Sbrink.

Okla., Tulsa.—Independent Royalty Co., capital \$4000, inceptd. by T. B. Biles and others.

Okla., Tulsa.—Parkville Oil Corp. chartered with \$25,000 capital by W. H. Muthy and others.

Okla., Tulsa.—Longfellow Drilling Co. chartered by S. B. Longfellow and others.

Okla., Tulsa.—Consumers' Petroleum Co., capital \$10,000, inceptd. by J. H. Temples and others.

Okla., Tulsa.—Marksland Oil & Gas Co., capital \$50,000, inceptd. by E. R. Elsea and others.

Okla., Tulsa.—Oil Sales Co., capital \$10,000, inceptd. by F. E. Braden and others.

Okla., Tulsa.—Mixwine Oil Co., capital \$10,000, inceptd. by J. H. Winemuller and others.

Okla., Tulsa.—Posey Oil & Gas Co., capital \$60,000, inceptd. by P. R. Short of Tulsa, W. P. Witschner and M. J. Gill of Kansas City, Mo.

donates 200 acres; complete projectile plant by Jan. 1, 1918; complete plate plant by April, 1918; increased cost of labor, supplies, etc., and further appropriations probably increase total expenditures for both plants to \$18,000,000 or \$20,000,000. (Armor-Plate Board lately noted as selecting Charleston for site of armor-plate and projectile plants, Congress having appropriated \$11,000,000 for armor plate and \$1,750,000 for projectile plants; plate-plant equipment to include 5 open-hearth furnaces, 10 gas producers, 2 electric-charging machines, etc.)

IRRIGATION SYSTEMS

Tex., San Benito.—Cameron County Irrigation Dist. No. 2, Alba Heywood, Secy., ask bids for about May 15 on 750,000 yds. earth removal (two-thirds of this being new work; balance, clean-out work); \$25,000 concrete structure work and some timber; \$50,000 headgate improvements; Engr., P. A. Welty, San Benito. This construction additionally described in March. (See Machinery Wanted—Irrigation Construction.)

LAND DEVELOPMENT

Ala., Gadsden.—Gulf States Development Co. (offices with Beggs Real Estate Co.), capital \$250,000, inceptd. with W. J. Beggs, Pres.-Treas.; J. C. Wilcox, Secy.; C. D. Loud, Mgr.; has 168,000 acres in Alabama, Georgia and Mississippi, 90,000 acres being in Alabama; will sell in tracts of 40 acres and over and colonize.

Ala., Mobile.—Abbot Nursery Co., capital \$400, inceptd. to operate nursery at Sunny Knoll Farm; J. Lloyd Abbot, Pres.-Treas.; C. H. Krause, V.-P.; Mrs. Helen T. Abbot, Secy.

Ky., Esco.—J. B. Elkhorn Land Co., capital \$50,000, inceptd. by E. M. Denham, H. S. Adkins and G. F. Saulley.

N. C., Beaufort.—Old Fort Improvement Co. inceptd.; Geo. Waterhouse, Pres.; P. L. Lee, V.-P.; W. E. Richardson, Secy.; F. H. Christensen, Treas.

Tenn., Knoxville.—City votes July 5 on issuing \$50,000 bonds for parks and playgrounds. John E. McMillan, Mayor.

Tex., Fall.—Lutcher & Moore Lumber Co., Orange, Tex., will build town for new extensive logging camp; 200 buildings, to include commissary and dwellings; A. J. Willison, Engr., and T. A. Howell, Archt.-Contr., both of Orange. (See Railway Shops, Terminals, etc.)

W. Va., Charleston.—Spring Hill Land Co., capital \$50,000, inceptd. by G. N. Means, H. W. Houston, M. E. Means and others.

W. Va., New Haven.—West Virginia Orchard Developing Co., Arthur Gold, Pres., Mason, W. Va., will develop 300 acres in fruit trees. (Lately noted inceptd., capital \$25,000.)

LUMBER MANUFACTURING

Ala., Coosa County.—Benj. Russell (care of Russell Mfg. Co., Alexander City) and associates, Alexander City, Ala., acquired 12,000 acres timber lands; 7000 acres bear graphite.

Ark., Little Rock.—Cochran-Foster Lumber Co. contemplates increasing capital from \$27,000 to \$40,000.

Ark., Niskey Spur.—Harrison Lumber Co. inceptd. with \$25,000 capital.

Fla., Crystal Springs.—Crystal Springs Lumber & Mfg. Co. let contract Chas. Soper of Crystal Springs to erect building, 30x50 ft., to house boiler, engine and saw.

Ga., Hillsdale.—O. M. Heard and Alex. Martin of Cordele, Ga., leased 1505 acres timber and will develop; lease covers timber suitable for sawmill purposes.

Ky., Flemingsburg.—Hall Lumber Co. organized; J. C. Wilson, Pres.; P. G. Hall, V.-P.; F. T. Littleton, Secy.; erect 40x60-ft. building; install planing mill machinery; manufacture frames and finish lumber. Lately noted inceptd., etc., capital \$4000. (See Machinery Wanted—Woodworking Machinery.)

Ky., Whitesburg.—C. P. Richter and others of Roaring Springs, Pa., will install band sawmill and develop Younts Fork timber tract.

Ky., Whitesburg.—Valley Creek Lumber Co. of Rochester, N. Y., purchased timber land on headwaters of Rockhouse Creek and will develop.

La., Lake Bruin.—Pritchard-Wheeler Lumber Co., C. G. Kadel, Mgr., Memphis, Tenn., will erect mill of 75,000 ft. daily capacity. (See La., Wisner.)

La., Sulphur.—Powell Lumber Co., Lake Charles, will build sawmill; daily capacity

50,000 ft. lumber; ordered machinery; develop pine and hardwood timber tract along Bayou Choupique.

La., Wisner.—Pritchard-Wheeler Lumber Co., capital \$300,000, inceptd. by Wm. Pritchard, C. L. Wheeler, C. G. Kadel and others, all of Memphis, Tenn.; purchased 30,000 acres timber in Louisiana and will erect sawmill of 75,000 ft. daily capacity at Wisner; erect another mill of same capacity next fall at Lake Bruin, La., Mr. Kadel to be Mgr.

Miss., Corinth.—Webster Lumber Co., Hubert F. Young (of Hubert F. Young Lumber Co.), Gen. Mgr., organized; purchased several stumpage tracts in Webster and Choctaw counties; install sawmills for development; have planing mill at Eupora; also handle output of other mills; present daily capacity 40,000 ft. yellow pine lumber.

N. C., Durham.—H. J. Thurman Lumber Co., Greensboro, N. C., will develop timber lands, installing small circular mill. (Lands lately noted purchased.)

N. C., Elizabeth City.—N. W. Poyner and J. J. Evans will install sawmill and cotton gin; purchased equipment.

Okla., Miami.—Williams Lumber Co., capital \$15,000, inceptd. by J. W. Scott of Miami, T. E. Williams and H. B. McDaniel of Springfield, Mo.

Okla., Newkirk.—Roberts & Stevens Lumber Co. chartered with \$10,000 capital by C. W. Roberts, L. D. Stevens and others.

Okla., Tulsa.—Lancaster Lumber Co., capital \$10,000, inceptd. by H. B. Lancaster, A. L. Lancaster and M. C. Dudrow.

Tenn., Lebanon.—Gulf Red Cedar Co. will rebuild mill reported burned at loss of \$25,000.

Tex., Houston.—Central Lumber Co. chartered with \$25,000 capital by J. W. Hill of Houston, C. M. Womack of Eagle Lake, Tex., and others.

METAL-WORKING PLANTS

Mo., Kansas City.—Wire.—Black Steel & Wire Co., capital \$600,000, organized by Harry W. Black (Pres. and Gen. Mgr.), Clint Moore, E. R. Kemp, E. W. Sinclair and others, all of Tulsa, Okla.; will manufacture wire and wire cables; ordered machinery; erecting building.

MINING

Ala., Ashland.—Graphite.—C. B. Allen Graphite Co. organized; C. B. Allen, Pres.; E. C. Allen, Secy., both of Ashland; S. M. Caudle, V.-P., Anniston, Ala.; develop 160-acre graphite property; build plant with 10-hr. capacity 100 tons ore. (Lately noted inceptd. with \$100,000 capital.)

Ala., Birmingham.—Expert Prospecting & Development Co. organized; W. F. Aldrich, Pres.; H. E. McCormack (of Pratt Consolidated Coal Co.), V.-P.; Geo. B. Tarrant (of National Cast Iron Pipe Co.), Secy.; Geo. H. Clark, Engr., Gen. Mgr.; Colman Blach, Treas.; Murray Brown, Director; will make expert investigations, start developments of mines, etc., with view to sales.

Ala., Birmingham.—Expert Prospecting Development Co., capital \$5000, inceptd.; W. F. Aldrich, Pres.; H. E. McCormack, V.-P.; Solman Blach, Treas.; Geo. B. Tarrant, Secy.; Geo. H. Clark, Gen. Mgr.

Ala., Coosa County.—Benj. Russell (care of Russell Mfg. Co., Alexander City) and associates, Alexander City, Ala., will develop 7000 acres graphite lands. (See Machinery Wanted—Mining (Graphite) Machinery.)

Ark., Montgomery County.—Manganese.—G. M. Whitson of Nashville, Tenn., is interested in plan to develop manganese property in Montgomery County.

Ga., Macon—Bauxite, etc.—Georgia Realty, Mining & Mfg. Co., 918 Georgia Casualty Bldg., organized; capital \$150,000; to mine bauxite, kaolin and fuller's earth; U. R. Hatfield, Pres.; Joel A. Smith, V.-P.; H. R. Brown, Secy.-Treas.; W. S. Deldrich, Gen. Mgr.

Ga., Macon—Sand.—Eden and Brown Taylor contemplate installing sand-pumping plant to increase daily capacity from 400 to 800 tons.

Ga., Tate—Marble.—Georgia Marble Co. reorganized with \$2,000,000 capital; Sam Tate, Pres.; A. V. Cortelyou and others, V.-Ps.; H. L. Litchfield, V.-P., advises Manufacturers Record: Have joined forces with Kennesaw Marble Co., Marietta, Ga.; Blue Ridge Marble Co., Nelson, Ga., and Geo. B. Sickles Marble Co., Tate; before reorganization Georgia Marble Co. has been producer of rough material only and left manufacturing to others, notably the three companies

named; they have been doing same class of work—interior, exterior and monumental; good plan to have each specialize on certain kind of work; not fully decided how this will be planned.

La., Union—Sulphur.—C. G. Dawes, Chicago, and associates are reported to have organized \$6,000,000 company to develop Calcasieu Parish sulphur deposits; mine by steam process; purchased large acreage adjoining proven sulphur fields.

La., Lake Charles—Gravel.—Dixie Gravel Co., capital \$12,000, inceptd.; Wm. T. Burton, Pres., Sulphur, La.; Jas. G. Sutton, V.-P.; Jas. F. Ellis, Secy.-Treas.; both of Vinton, La.

Mo., St. Francois—Smelting and Refining.—St. Louis Smelting and Refining Co. let contract to Unit Construction Co., Title Guaranty Bldg., St. Louis, to design and construct thawhouse; about 240x55 ft.; reinforced concrete and tile.

N. C., Franklin—Mica.—Nachoole Mining Co., L. K. Kelly and C. E. Bonesteel interested, will develop mica mine in Burnington section.

Okla., Commerce.—Lucky G. W. Mining Co., capital \$4000, inceptd. by G. W. Nesmith and Zeila Nesmith of Commerce and W. H. Scott of McAlester, Okla.

Okla., Miami—Zinc.—Ozark Lead & Zinc Co. organized; A. T. Lewis, Pres. and Mgr.; E. B. Gledwell, Springfield, Mo., V.-P.; H. B. Morton, Brookline, Mo., Secy.-Treas.; develop 60 acres. Lately noted inceptd., capital \$39,000. (See Machinery Wanted—Drilling Equipment.)

Okla., Tulsa.—Santa Fe Mining Co., capital \$150,000, inceptd. by T. B. Biles, F. E. Biles and G. L. Paris.

MISCELLANEOUS CONSTRUCTION

Ark., Pine Bluff—Levee.—Farrelly Lake Levee Board, John M. Grace, Chmn., will construct 500,000 cu. yds. new levee and 200,000 yds. of enlargement work on old levees; separate bids until May 7 on new work and enlargements; Humphreys & Tovey, Engrs., Pine Bluff. Lately noted to build 6 mi. of new levee, repair 12 mi. old levee and construct concrete flood gate and spillway on Big Bayou at total estimated cost of \$300,000. (See Machinery Wanted—Levee Construction.)

Fla., Jacksonville—Steamship Dock.—Clyde Steamship Co., general offices, Pier 36, N. R., New York, W. M. Tupper, Jacksonville Supt., advises Manufacturers Record: Will reconstruct dock; now removing debris from old dock; will announce plans and specifications for new structure. (Lately noted burned, estimated loss \$50,000.)

Okla., Tulsa—Salvage.—Tulsa Salvage Co., capital \$15,000, inceptd. by Remington Rogers, P. J. Hodges and J. P. Haley.

Tex., El Paso—Subway.—El Paso & Southwestern Ry. (G. F. Hawks, Gen. Mgr., El Paso) and Galveston, Harrisburg & San Antonio Ry. (G. S. Wald, Gen. Mgr., Houston) are reported to construct subway.

Va., Sewalls Point—Coal Piers.—Virginian Ry., H. Fernstrom, Chief Engr., Norfolk, let contracts for Sewalls Point coal pier additions to cost \$750,000; provide facilities for loading additional 3600 tons coal per hour; these additions include car dumper, elevator, 1 or 2 track scales, 6 conveyor cars, additional 500-volt motor, structural steel work between elevator and coal piers and yard for empty cars; car dumper, electrically operated, 152 tons capacity; also furnish electrically-operated mule haulage for handling road cars to car dumper, both to have capacity of handling not less than 30 dumps per hour; conveyor cars, electrically operated, capacity of 120 tons each; track scales to weigh conveyor cars; elevator to elevate not less than 30 conveyor cars per hour; Wellman, Seaver, Morgan Co., Cleveland, Ohio, has contract for car dumper, elevator and conveyor cars; Straight Scales Co., Kansas City, scales; General Electric Co., Schenectady, N. Y., electrical equipment; Virginia Bridge & Iron Co., Roanoke, structural steel; John Pettyjohn Co., Lynchburg, concrete foundation; also increase present electrical power sub-station to accommodate 2 additional 500 K. W. rotary converters and necessary control; at present install but 1 converter; additional 500-volt direct current motor is for purpose of transforming 11,000-volt alternating current furnished by Virginia Ry. & Power Co. into direct voltage current. (Noted in Nov.)

W. Va., Martinsburg—Subway.—City votes May 8 on \$35,000 bonds to construct subway under tracks of Baltimore and Ohio R. R. at Queen St., P. W. Letter, Mayor. (Lately noted.)

MISCELLANEOUS ENTERPRISES

Fla., Miami—Contracting.—Municipal Construction Co., inceptd.; Geo. M. Schafer, Pres.; J. W. Williams, Secy., 633 14th St. (See Machinery Wanted—Paving (Asphalt) Equipment, etc.)

Ga., Quitman—Grain Elevator.—W. M. Thomas will build grain elevator for oats, corn, velvet beans, rye, etc.; daily capacity 6000 bu.

Ky., Louisville—Taxicabs.—Buchart Taxi Co., inceptd. by A. Buchart, C. Lawke and F. P. Buchart.

La., New Orleans—Grain Elevator.—Dock Board let contract to Janse Bros., Boomer, Crain & Howe, New Orleans, for 112 circular storage bins, as addition to public grain elevator; cost about \$550,000; concrete structure; capacity 1,600,000 bu.; quotations on elevator and conveying machinery are being received; J. D. O'Reilly, Chief Engr., Dock Board, receives bids on all materials. (Lately noted and previously described as part of waterfront improvements under \$3,000,000 bond issue authorized in 1915.)

Mo., Joplin—Dyeing, Cleaning, etc.—James' Chemical Dye Works organized; H. Tom James, Pres.-Mgr.; E. M. James, V.-P.; A. M. Bradley, Secy.; erect 125x50-ft. brick building and 30x20-ft. fireproof dry-cleaning room costing \$8000; J. C. Hansen, Archt., 819 Fresno Bldg.; install dry-cleaning machinery. (Lately noted inceptd. with \$18,000 capital.)

N. C., Greensboro—Engineering and Construction.—Central Engineering & Construction Co., 109 E. Market St., organized with E. P. Wharton, Pres.; D. Tucker Brown, V.-P. and Mgr.; John D. Waldrop, Secy.; O. L. Grubbs, Treas. (Noted in March as inceptd. with \$75,000 capital.)

S. C., Charleston—Contracting.—General Road & Drainage Construction Co., capital \$10,000, inceptd. by L. M. Pinckney and J. A. Storfer.

Tex., Dallas—Paving and Road Contracting.—Bramley-Lanham Paving Co., 311 Interurban Bldg., organized; Frank V. Lanham, Pres. and Mgr.; M. G. Bramley, Cleveland, Ohio, V.-P.; Paul V. Miller, Secy.; conduct paving and road construction. (Lately noted inceptd., capital \$100,000.)

Tex., El Paso—Transferring.—Texico Transfer Co. inceptd. with \$10,000 capital by John R. Burch, Jack Taylor and H. M. Adams.

Tex., Garland—Publishing.—Garland News will occupy 1-story 25x100-ft. building to be erected by J. S. Armstrong, Garland; hollow-tile joist construction; tar and gravel roof; concrete floor; cost \$2400; Archts., Curtis, Broad & Lightfoot, Paris, Tex.; Contrs., J. W. Miller & Co., Paris.

Tex., Wichita Falls—Vulcanizing.—Para Vulcanizing Co. is reported to erect building.

Va., Richmond—Laundry.—John Thompson, 1600 Third Ave., is interested in proposed installation of laundry machinery. (See Machinery Wanted—Laundry Machinery.)

Va., Suffolk—Printing.—Herald Printing Co., capital \$45,000, inceptd.; J. A. Osborne, Pres., Suffolk; J. W. Holloway, V.-P., Smithfield, Va.; M. W. Osborne, Secy.; J. A. Osborne, Treas. and Gen. Mgr.; both of Suffolk.

W. Va., Martinsburg—Incinerator.—City votes May 8 on \$5000 bonds to build garbage incinerator. P. W. Letter, Mayor.

W. Va., St. Albans—Printing.—A. Selden will erect 40x70-ft. building; cost \$3500; concrete fireproof construction with concrete floor; gas heating; gas and electric lighting.

MISCELLANEOUS FACTORIES

Ala., Albany—Brooms.—Albany Broom Co. organized; acquires local plant.

Ala., Albany—Overalls.—Albany Overall Co. organized with P. A. Bloodworth, Pres.; I. J. Kuhn, V.-P.; W. R. Hall, Secy.-Treas.

Ala., Birmingham—Soap.—Edgar W. Rich Soap & Cleanser Co. of Edina, Mo., is reported as contemplating establishment of plant.

Ark., Fort Smith—Window Glass.—Ideal Window Glass Co., West Union, Va., will establish plant.

Ark., Fort Smith—Lamp Chimneys.—Tulsa Glass Co., Tulsa, Okla., will establish plant.

Ark., Little Rock—Cigars.—Bachrach Cigar Co., capital \$5000, inceptd. by David M. Bachrach, Leon H. Glass and E. L. Ehrman.

Ark., Welner—Rice.—North Arkansas Milling Co. organized with \$25,000 capital to build rice mill; Wm. Reel, Pres.; Wm. Roth, Secy.-Treas.

Fla., Apalachicola—Shipbuilding.—J. F. Warren proposes organization of company to

build plant for constructing wooden schooners up to 1000 tons; preparing to equip yards.

Fla., Pensacola—Aeroplane Repairs Shops. Bureau of Yards and Docks, Navy Department, Washington, D. C., receives bids until May 7 for construction and extension of structural steel frame aeroplane hangars and erecting-shop at Navy aeronautic station, Pensacola, Fla., in accordance with specification and accompanying drawings. Specifications No. 2357 and drawings on application to Bureau or to Commandant of Navy aeronautic station named.

Fla., Pensacola—Aeroplanes.—Bureau of Yards and Docks, Navy Dept., F. R. Harris, Chief, Washington, D. C., will erect dirigible hangar at Navy Aeronautic Station; structural steel frame on concrete foundation; louvre and ventilators; wood floor on wood sleepers on concrete base; 122.3½x250 ft.; bids opened April 23 for roof and side covering, windows, doors, louvres and floors; concrete foundations for steel frame constructed by Government; steel frame and main doors erected under contracts already awarded.

Ga., Dublin—Peanut Crushing.—Empire Cotton Oil Co. will install peanut-crushing plant.

Ga., Savannah—Naval Stores.—Rosin & Turpentine Export Co. increased capital from \$300,000 to \$500,000.

Ga., Statesboro—Bakery.—H. J. Simpson & Co., capital \$5000, inceptd. by H. J. Simpson and A. L. Salyer.

Ky., Louisville—Pianos and Organs.—Adler Mfg. Co. will erect plant; brick construction; cost \$15,000.

Md., Baltimore—Muffler, etc.—Coale Muffler & Safety Valve Co., 325 E. Oliver St., capital \$200,000, inceptd. by John S. Bridges, Wm. J. O'Brien, Jr., and Chas. M. O'Brien.

Md., Baltimore—Shipbuilding.—Bernard N. Baker, 905 Calvert Bldg.; E. M. Newton and DuRell Gauge propose to organize company to construct shipbuilding plant on water-front at or near Baltimore; build steel vessels; contemplate capitalization of \$50,000,000; no definite arrangements as yet completed for financing and organizing this enterprise.

Mo., St. Louis—Garments.—H. L. Schiffman Garment Mfg. Co., capital \$200, inceptd. by H. L. Schiffman, Maurie Stahl and Sol Solomon.

N. C., Charlotte—Marble and Tile.—Atlantic Marble & Tile Co., capital \$100,000, inceptd. by A. F. Toffoli, J. R. Marus and H. C. Federa.

N. C., Charlotte—Ice Cream.—Purity Ice Cream Co. organized with Geo. P. Sacks, Prest.; J. L. Snyder and others, V.-Ps.; G. Hall White, Secy.; I. H. Fill, Treas.; secured Purity Dairy Products Co.'s plant at 520 W. Fifth St.; remodel and install additional ice cream equipment, pasteurizers, clarifiers, etc.; install ice plant with daily capacity 30 tons ice and maximum refrigeration 60 tons. (Lately noted inceptd. with \$125,000 capital.)

S. C., Charleston—Mattresses.—Karl E. Stello Mfg. Co., capital \$25,000, inceptd. by Karl E. Stello and others.

N. C., Greensboro—Window Shades.—Cunningham Springless Shade Co., organized; Chas. D. Cunningham, Prest.; W. H. Osborn, V.-P.; J. Harry Cunningham, Secy.; install electric-driven machinery for cutting, tacking, rolling and crimping shades; also sewing machines; daily capacity 200 doz. springless window shades. Lately noted inceptd., capital \$25,000. (See Machinery Wanted—Stamping Brackets, Etc.)

N. C., La Grange—Tobacco.—La Grange Steam Plant Co. chartered with \$20,000 capital by Guy Dawson and others.

N. C., Warsaw—Tobacco.—M. K. Walker Tobacco Co. (lately noted inceptd. with \$50,000 capital) will erect 2-story 130x87½-foot mill construction building costing \$14,000; R. F. Stroud, Contr., Wallace, N. C.; W. R. Rose, Archt., Goldsboro, N. C. (See Machinery Wanted—Boiler; Engine.)

Okl., Fairview—Animal Yokes.—Success Animal Yoke Co., capital \$10,000, inceptd. by L. R. Hinkle of Fairview, W. S. Glasgow of Helena, Okla., and R. M. Ralston of Camargo, Okla.

Okl., Muskogee—Measures.—Guarantee Liquid Measure Co. inceptd. with \$5000 capital by A. T. Woods, R. Ray and W. C. Scott.

S. C., Chester—Creamery.—Chamber of Commerce plans organization of \$5000 company to establish creamery; monthly capacity, 10,000 lbs. butter.

Tenn., Chattanooga—Gas Jets.—American Lava Co. increased capital from \$45,000 to \$80,000.

Tenn., Klondike—Screen Doors.—Geo. W. Rolinger will manufacture screen doors. (See Machinery Wanted—Wire.)

Tenn., Knoxville—Beverages.—Knoxville Beverage Co., capital \$5000, inceptd. by E. E. Weaver, J. P. Matlock, S. L. Proffitt and others.

Tenn., Lebanon—Chemicals.—Elite Chemical Co., capital \$12,000, inceptd. by W. D. Graidstaff, C. E. Tate, R. N. Thomas and others.

Tex., Dallas—Hats.—Southwestern Hat Mfg. Co. chartered with \$5000 capital by W. M. Blakeney, Thos. Archibald and D. B. McKinney.

Tex., De Leon—Peanut Oil Factory.—Higginbotham & Co. will erect 4-story peanut oil factory.

Tex., Pittsburg—Mattresses.—Pittsburg Cotton Oil Co. advises Manufacturers Record: Adding mattress factory to cotton-oil mill, to use output in liners. (See Machinery Wanted—Feeling Machines.)

Va., Hopewell—Reconstructed Stone.—Graham Reconstructed Stone Co., Graham, Va., will establish plant.

Va., Norfolk—Shipbuilding Slip.—Bureau of Yards and Docks, Navy Dept., Washington, rejected bids to construct shipbuilding slip at Norfolk Navy Yard. (Lately noted inviting bids.)

Va., Norfolk—Bottling.—Tampa Coca-Cola Bottling Co. will meet May 1 to vote on increase in capital from \$10,000 to \$100,000.

W. Va., Belle—Salt, etc.—Ohio Cities Gas Co., W. D. Stoughton, Mgr. of West Virginia division, Charleston, W. Va., is reported to have purchased site for \$1,000,000 plant to manufacture salt, calcium chloride, chlorine, bromine, etc. (Previously noted under Charleston as contemplating manufacture of salt in Cabin Creek Dist.)

W. Va., Charleston—Glass.—A. M. Schenk of Wheeling will build glass plant; purchased equipment.

W. Va., Huntington—Window Glass.—McCoy Machine Glass Co., capital \$40,000, inceptd. by H. E. Camp, M. L. Camp, F. F. Rigall and others.

W. Va., Parkersburg—Drinking Utensils.—Craven Mfg. Co., capital \$25,000, inceptd. by E. E. Craven, E. L. Davidson, D. B. Crawford and others.

W. Va., South Charleston—Chemicals.—E. C. Kilpstein & Sons Co., 644 Greenwich St., New York, will build additions; Chas. Houchins Higgins, Consit. Engr. and Archt., 165 Broadway, New York, advises Manufacturers Record: Have prepared plans for 5 buildings; bids until May 1; reinforced concrete construction with brick curtain walls, spread footings and steel sash; 2-story, 29½x13 ft.; 2-story, 120x49 ft.; 3-story, 52x33 ft.; 1½-story, 46½x22 ft., with platform and awning; 1½-story, 40½x22 ft., with platform and awning.

W. Va., Wheeling—Airplanes, etc.—West Virginia Flying Corps., capital \$500,000, inceptd. by J. C. McKinley, H. B. Lockwood, H. O. Wells and others.

MOTOR CARS, GARAGES, TIRES, ETC.

Ark., Fort Smith—Garage.—Paul W. Sheridan's Ford Automobile Agency will occupy building to be erected by Ira D. Oglesby, Sr.; structure will be fireproof; brick; 75x140 ft.; plate-glass front; cost \$25,000; plans being prepared.

Ark., Fort Smith—Yantis-Harper Tire Co. will occupy building to be erected by Ira D. Oglesby; brick structure; cost \$15,000.

Ark., Texarkana—Garage.—Studebaker Garage will remodel Carter Bldg. at 314 State Line Ave.; total area 50x140 ft.; completed structure to be 2 stories, concrete base, brick walls; H. A. Adams, Contr.

Fla., Clearwater—Garage.—A. B. Crews will occupy garage to be erected by T. J. Sheridan; structure will be 1 story; 75 ft. sq. (Lately noted.)

Ga., Atlanta—Garage.—Mrs. Kate Cox will erect garage; 1 story; brick and stone; cost \$17,500; The Flagler Co., Contr.

La., New Orleans—Garage.—M. Zilbermann will erect service station; cost \$10,000.

Md., Frederick—Garage.—Mountain City Garage will erect garage; 2 stories; brick; storage capacity for 300 cars; site has frontage of 75 ft.

N. C., Concord—Automobiles.—City Motor Co. chartered with \$25,000 capital by A. F. Hartsell, E. C. Niblick and others.

N. C., Wadesboro—Garage.—Blalock-Allen Auto Co. purchased 66x175-ft. site; will erect 2-story brick garage; plate-glass front.

Okl., Chandler—Service Station.—Ford Service Station will be installed in building

to be erected by Crane & Anderson; fireproof 50x140-ft. \$7000 structure; bids to be opened July 1; install service station equipment, cost \$1000. A. H. Holt, Constr. Engr. (Lately noted.)

Okl., Miami—Judd Bros. Motor Co. will open bids May 1 to erect 3-story fireproof 100x120-ft. garage building; plans by Overton & Torbit; open bids July 1 on garage and machine-shop machinery; Loyd W. Judd, Prest. and Mgr.; Chas. Robinson, North Miami, V.-P.; W. F. Judd, Secy. Lately noted. (See Machinery Wanted—Machine-shop Equipment, etc.)

Okl., Oklahoma City—Motor Trucks.—Truck Sales Co. chartered with \$3000 capital by Chas. A. Tappan and others.

Okl., Oklahoma City—Automobiles.—Scott Auto & Supply Co., capital \$16,000, inceptd. by Wm. Scott, Jas. H. Scott and E. F. McElhose.

Okl., Oklahoma City—Garage.—United States Garage Co. inceptd. with \$50,000 capital by H. B. Shanks and others.

Okl., Pawhuska—Garage.—Osage Garage, capital \$5000, inceptd. by C. W. Stephens, C. T. Easterbrook and Don H. Anderson.

Okl., Sulphur—Garage.—B. J. Carter let contract to erect automobile salesroom and garage; fireproof; cost \$15,000.

S. C., Columbia—Automobile Tires.—Carolina Tire & Accessory Co. increased capital from \$1000 to \$15,000.

Tenn., Clarksville—Garage.—Royal Garage and Machine Co., capital \$10,000, inceptd. by J. D. Traugher, C. W. Rudolph, J. H. Smith, Jr. and others.

Tex., Abilene—Automobiles.—Duggen-Brown Overland Co., capital \$30,000, inceptd. by W. F. Dugan, J. E. Brown and R. L. Over.

Tex., Dallas—Tires.—Texas Tire Co., capital \$25,000, inceptd. by E. M. Hampton and others.

Tex., Georgetown—Automobiles.—Irrigation Auto Co., capital \$10,000, inceptd. by T. J. Caswell and J. M. May, both of Georgetown, and J. V. Rowlett of Jonah, Tex.

Tex., Wichita Falls—Garage.—Elgin Auto Sales Co. will occupy building to be erected by Geo. Davis; structure will be 50x150 ft., brick; cost \$9500; Taylor Bros., Contr., Wichita Falls.

Va., Lexington—Garage.—Blue Front Garage, J. N. Hotinger, Murat, Va., Prest., and L. A. Clark, Mgr., let contract to J. C. Loyall, Lexington, to erect \$7000 fireproof garage building; install elevator; lately noted inceptd., capital \$15,000. (See Machinery Wanted—Elevator.)

W. Va., Wheeling—Automobiles.—Wheeling Oakland Co., capital \$5000, inceptd. by L. M. Kratner, J. H. Boneystelle, Carl Snedeker and others.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSE, ETC.

Tex., El Paso—El Paso & Southwestern Ry. (G. F. Hawks, Gen. Mgr., El Paso) will install block signals to cost \$94,000.

Tex., Fal—Gulf, Sabine & Red River R. R., A. H. Farwell, Gen. Mgr., owned by Litcher & Moore Lumber Co., Orange, Tex., will build general railway shops and remove present plant from Fields, La., to Fal; latter is location of Litcher & Moore Lumber Co.'s new extensive logging camp; also terminal of railway; enlarge plant at new site; A. J. Willison, Engr., and T. A. Howell, Archt.-Contr., both of Orange, for camp and railway buildings and for developing new town.

Va., Portsmouth—Seaboard Air Line Ry., W. D. Faucette, Ch. Engr., Norfolk, let contract W. E. Morgan to erect coach shop and upholstery shop; latter for manufacturing car seats, etc.; former will be 92x250 ft.; Hyrib concrete; concrete floors; main portion of structure 40 ft. high and divided by fire wall; side bays 28 ft. high; steel rolling doors.

ROAD AND STREET WORK

Ala., Attalla—City voted \$11,000 bonds for street improvements and schools. Address The Mayor.

Ala., Birmingham—City will construct sheet-asphalt paving, etc., under Improvement Ordinances Nos. 952-C and 948-C; also asphaltic concrete paving, etc., under Improvement Ordinance No. 927-C; bids opened Apr. 24; Julian Kendrick, City Engr. (See Machinery Wanted—Paving.)

Ala., Dadeville—Tallapoosa County votes May 7 on bonds to construct road and bridges. Address County Commrs.

Ala., Selma—City asks bids until May 15 for curbing and paving on Alabama and

Selma Aves.; W. O. Crisman, City Engr. (See Machinery Wanted—Paving.)

Ala., Selma—City will construct concrete sidewalks on north side Alabama Ave., from Franklin to Mechanics St.; W. O. Crisman, City Engr., receives bids until May 4. (See Machinery Wanted—Paving.)

Ark., Argenta—City let contract to Joe Barrett, Little Rock, at \$3500 for 9 blocks of macadam construction on West 18th St., from Main St. to Pike Ave. (Lately invited bids.)

Ark., Des Arc—Comms. Improvement Dist. No. 1 (L. D. Ballow, W. W. Bethell and John W. Booth) will construct 115,036 sq. ft. concrete sidewalks; bids opened April 25. (See Machinery Wanted—Paving.)

Ark., Eureka Springs—Carroll County Comms. let contract Inland Construction Co. of Memphis, Tenn., at \$51,500 to construct Eureka Springs-Seligman Rd., from Eureka Springs to Carroll County line; Hugh R. Carter, State Highway Engr., Little Rock. (Noted in March.)

Ark., Texarkana—Miller County Highway and Bridge Dist., Louis Josephs, Secy., 436 State National Bank Bldg., asks bids until May 10 to construct 70 mi. road; Fulton Rd., 18 mi.; Index Rd., 8 mi.; Carr Bend Rd., 4 mi.; Dooley Ferry Rd., 12 mi.; Garland City Rd., 13 mi.; Genoa Rd., 6 mi.; Line Ferry Rd., 4 mi.; Contract 1 (Fulton Rd.) calls for road surfaced with gravel, penetration asphalt, asphalt carpet coat, or concrete; all other roads to be surfaced with gravel; Engrs., Lund & Hill, 527 Southern Trust Bldg., Little Rock, and Christian & Ayres, 425 State National Bank Bldg., Texarkana. (See Machinery Wanted—Road Construction.)

Ark., Walnut Ridge—Lawrence County, Road Improvement Dist. No. 2, will construct 5½ mi. macadam road; 13,319 cu. yds. excavation; 6 acres clearing and grubbing; 120 lin. ft. 15-in. corrugated pipe; 240 lin. ft. 18-in. corrugated pipe; 48 lin. ft. 30-in. corrugated pipe; 50 cu. yds. reinforced concrete, etc.; Road Comms. (J. A. Fender and others) receive bids until May 1; F. A. Pritchett, Engr., Walnut Ridge. Lately noted to expend \$20,000. (See Machinery Wanted—Road Construction.)

Ark., Walnut Ridge—Lawrence County, Road Improvement Dist. No. 1, will construct roads as follows: 75,500 cu. yds. excavation; 55 acres clearing and grubbing; 66 lin. ft. 15-in. corrugated pipe; 370 lin. ft. 24-in. corrugated pipe; 300 cu. yds. reinforced concrete; 200 cu. yds. plain concrete; 26,545 tons crushed rock; 300 lin. ft. steel bridges; Road Comms. of District (J. A. Fender and others) receive bids at office of Ponder, Gibson & Ponder, Attys., until May 1; F. A. Pritchett, Engr., Lately noted to expend \$100,000. (See Machinery Wanted—Road Construction.)

Fla., Miami—City contemplates construction of asphalt paving. Address The Mayor.

Fla., Palatka—Putnam County Comms., R. J. Hancock, Clerk, ask bids until May 25 to construct 29 mi. road; will consider vitrified brick, asphalt, asphaltic concrete, asphalt block, and concrete; also curb and pipe drainage, 2 reinforced concrete bridges, and 5 reinforced concrete culverts; Frank J. Fagan, Engr. (See Machinery Wanted—Road and Bridge Construction.)

Fla., Perry—City votes May 15 on \$75,000 bonds for street paving. Address The Mayor.

Fla., Tavares—Lake County Comms., H. H. Duncan, Clerk, asks bids until May 7 to construct roads, Howey Special Dist.; includes 121,200 lin. ft. roadway, 31,717 cu. yds. excavation, 215,500 sq. yds. sand-clay surfacing, 70 acres clearing and grubbing; 180 ft. 18-in., 180 ft. 15-in. and 180 ft. 12-in. T. C. drains; 700 lin. ft. bridge reconstruction (Browns Ford); bids asked for sand-clay surfacing; E. J. Close, Leesburg, Fla., Engineer; lately noted. (See Machinery Wanted—Road Construction.)

Ga., Marietta—City let contract Merrill Road Improvement Co., Chattanooga, at \$48,000, to pave 12 streets with vitrified brick, construct 6000 yds. sidewalk and 6500 yds. curbing; Knox T. Thomas, Consit. Engr., Forsyth Bldg., Atlanta; V. B. Waddell, City Clerk. (Noted in March as inviting bids.)

Ky., Hazard—Perry County, B. P. Combs, Clerk, defeated bonds for road construction. (Lately noted.)

Ky., Princeton—Caldwell County votes May 28 on \$25,000 bonds to construct roads. Address County Comms.

La., Alexandria—Rapides Parish Supvrs., Road Dist. No. 8, J. W. Texada, Boyce, La., Prest., will improve roads; ask bids until May 28 for grading, bridging, culverts and drains; for hauling, placing and rolling of gravel surface; for gravel, sand, stone, re-

inforcement and bridge material for Units 1, 2 and 3—about 15 mi.; Engr. Ira W. Sylvester, Alexandria, La. (See Machinery Wanted—Road Improvements.)

La., Edgard.—St. John the Baptist Parish will vote in June on \$180,000 bonds to construct roads. Address Police Jury.

La., Opelousas.—St. Landry Parish, Road Dist. No. 6, votes June 5 on \$500,000 bonds to construct 96 mi. of roads. Address Police Jury.

Md., Baltimore.—State Roads Com., Garrett Bldg., let contract E. Ward Brown, Port Deposit, at \$73,086 to construct 3.43 mi. road and to Potomac Engineering & Construction Co. at \$55,460 to construct 3.07 mi. road.

Md., Cumberland.—City will pave and otherwise improve 12 streets and construct conduit; 14,140 lin. ft. concrete curb, 6100 sq. yds. brick paving, 930 sq. yds. wood-block paving and 23,600 sq. yds. cement-concrete paving; 525 lin. ft. 6x4-in. reinforced concrete conduit; bids until April 30; Ralph L. Rizer, City Engr.; date of opening bids postponed from April 23; lately noted. (See Machinery Wanted—Paving, etc.)

Miss., Lexington.—Holmes County will construct 3½ miles gravel and 10 miles sand and clay highways; J. H. Fuqua, Chancery Clerk, receives bids until April 30; R. F. Cornell & Co., Engrs., Durant, Miss. (See Machinery Wanted—Road Construction.)

Miss., Port Gibson.—Claiborne County Suprs. authorized \$40,000 bond issue for road and bridge construction.

Mo., Benton.—Scott County contemplates construction of rock or gravel roads; M. S. Murray, Sikeston, Mo., Highway Engr. (Lately noted to vote May 17 on \$800,000 bonds for road construction.)

Mo., Brunswick.—City let contract Kennedy & Olson, 601 Ridge Arcade Bldg., Kansas City, Mo., to construct 8000 sq. yds. brick block paving on concrete base with asphalt filler.

Mo., Caruthersville.—City will construct 23,800 sq. yds. concrete and tarvia macadam paving; bids opened Apr. 23; J. M. McGinnis, City Clerk.

N. C., Elizabeth City.—City will expend \$60,000 for street paving; lay 2000 sq. yds. experimental concrete paving on Pennsylvania Ave. Address The Mayor. (Lately noted to issue \$20,000 bonds.)

N. C., Edenton.—City, J. R. McMullan, Clerk, asks bids until May 7 to construct 25,000 sq. yds. asphalt, concrete or brick pavements, with curbing, storm drainage, etc.; Engr. J. B. McCrary Co., Third National Bank Bldg., Atlanta, Ga. (See Machinery Wanted—Paving.)

N. C., Hamlet.—City let contract W. J. Galloway of Hamlet to improve streets, to include 50,000 lin. ft. concrete curb and gutter, and 20,000 cu. yds. grading; contract is exclusive of 25,000 sq. yds. sidewalk paving; Gilbert C. White, Engr., Durham, N. C.; amount of work involved \$70,000; H. D. Hatch, Mayor. (Lately noted inviting bids.)

N. C., Lenoir.—City will pave streets and sidewalks; 25,000 sq. yds. street paving, 10,000 sq. yds. sidewalk paving, 1300 sq. yds. concrete gutter, 5000 lin. ft. combined curb and gutter, 2000 lin. ft. granite or cement curb, 1700 lin. ft. storm drain from 12 to 20 in., intake basins, manholes, etc.; bids until April 30; B. F. Williams, Mayor; E. W. Cole, Engr. (See Machinery Wanted—Paving.)

N. C., Pittsboro.—Chatham County, Williams Township, voted \$30,000 bonds to construct roads. Address County Comrs. (Lately noted.)

N. C., Pittsboro.—Chatham County Commissioners, Baldwin Township, will issue \$30,000 bonds to construct roads.

N. C., Thomasville.—City, N. S. Mullican, City Mgr., let contract to G. R. Martin, Salisbury, N. C., to construct 15,000 yds. sidewalk; cost \$16,000. (Bids lately noted for concrete sidewalks.)

Okla., Chickasha.—Grady County, Tuttle Township, voted \$10,000 bonds to construct roads. Address County Comrs.

Okla., Mangum.—City, Fowler Border, Mayor, engaged Benham Engineering Co., Colcord Bldg., Oklahoma City, to prepare plans and specifications for 2½ mi. paving.

Okla., Pryor.—Mayes County Comrs., J. B. Dunham, Chmn., Chouteau Township, will construct dirt roads and concrete culverts; T. P. Clonts, County Engr., Muskogee, Okla.; voted \$30,000 bonds. (Bonds lately noted.)

Okla., Sapulpa.—City let contract John E. Nolan at \$68,727.10 to pave 19 blocks on sec-

tions of Bryan, Division, Lane and other streets.

S. C., Beaufort.—City, H. G. Otis, City Mgr., asks bids until May 10 to construct about 13,000 sq. yds. cement concrete, bitulithic or Warrenite paving, also curb and gutter; noted in March. (See Machinery Wanted—Paving.)

S. C., Easley.—City voted \$25,000 bonds to pave streets and sidewalks. Address The Mayor. (Lately noted.)

S. C., Newberry.—Newberry County No. 4 Township, voted \$40,000 bonds to construct roads. Address County Comrs.

Tenn., Centerville.—Hickman County Commissioners, J. T. Webb, Chmn., let contract to Brown & Rawlinson, Duck River, Tenn., to construct 150 mi. macadam roads; \$225,000 available; T. C. McEwen, Engr., Centerville. (Bids noted in March.)

Tenn., Erwin.—City let contract Murray Construction Co., Knoxville, at \$45,000 to construct 19,000 sq. yds. asphalt paving; H. W. Morgan, Engr. (Noted in Feb. as inviting bids.)

Tenn., Maynardville.—Union County, Geo. N. Taylor, County Judge, will expend \$50,000 to grade and macadam roads; issue warrants. (Lately noted.)

Tenn., Springfield.—Robertson County Comrs. contemplates ordering election to vote on \$150,000 bonds to improve roads.

Tex., Hereford.—City, Wm. M. Knight, Mayor, let contract to McCormick Co., Kansas City, for about 12 blocks asphaltic concrete pavement; Henry E. Elrod, Engr., Dallas, Tex. (Bids lately noted.)

Tex., Plainview.—City let contract to J. N. Jordan & Co., Plainview, at \$120,000 for vertical fiber brick paving with 4-in. reinforced concrete base, about 70,000 sq. yds. (Lately invited bids.)

Tex., Quitman.—Wood County will construct 35-mi. gravel surface roads; \$150,000 available; opened bids April 23; J. D. Carter, Chief Engr., Dallas, Tex.; R. E. Morris, Asst. Engr., Quitman; R. E. Bozeman, County Judge.

Tex., Rusk.—Cherokee County, Dist. No. 1, let contract Smith Bros., Crockett, Tex., to gravel 4 roads out of Jacksonville, about 25 mi.; Lee H. Powell, Chief Engr., Jacksonville; J. E. McFarland, Secy. Road Com., Dist. No. 1. (Lately noted inviting bids.)

Tex., Sherman.—City let contract to Kaw Paving Co., Kansas City, Mo., at \$53,000 for paving on North Montgomery, West Pecan, East Brockett and East King Sts. (Lately noted inviting bids.)

Tex., Vernon.—Wilbarger County Commr. postponed indefinitely election to vote on \$1,000,000 bonds to construct macadam, gravel or paved roads. (Lately noted as contemplating vote.)

Va., Covington.—City, J. H. Overholt, City Clerk, will construct about 3 mi. paving; sheet asphalt and asphaltic concrete on concrete base; C. P. Burnett, Covington, Engr., is preparing plans. (Lately noted voting \$150,000.)

Va., Hampton.—Elizabeth City County, Wythe Dist., votes May 19 on \$50,000 bonds to construct roads. Address County Comrs.

Va., Norfolk.—City let contract Lawson Construction Co. for 33,795 sq. yds. asphalt paving, and F. J. McGuire for 4520 sq. yds. wooden-block paving; contracts aggregate \$80,000.

W. Va., Bluefield.—City will pave with bituminous macadam on concrete base and construct curbs and gutters on sections of Williams and Franklin Sts. and Roy Ave.; bids until May 11; J. T. Akero, Recorder. (See Machinery Wanted—Paving.)

W. Va., Hinton.—Summers County Commissioners let contract to T. C. Graham, Fayetteville, W. Va., at \$2300 for 2 mi. of highway; also for 5 mi. highway; also for surfacing 5 mi. of road.

W. Va., Lewisburg.—Greenbrier Co. will grade, widen and surface with bituminous macadam, penetration method and water-bound macadam, 17½ mi. road in Fort Spring Dist.; County Comrs. receive bids until May 1; John S. Crawford, Clerk; W. E. Dougher, Dist. Engr., Ronceverte, W. Va. (See Machinery Wanted—Road Construction.)

W. Va., Martinsburg.—City votes May 8 on \$115,000 bonds to pave streets with brick and asphalt macadam. P. W. Leiter, Mayor. (Lately noted.)

W. Va., Wellsburg.—Brooke County Court asks bids until May 24 to construct 3 sections road, about 9.2 mi., brick, bituminous or asphaltic concrete; also bids on 6.3 mi. water-bound or tar-bound macadam; C. A. Elcheberger, County Road Engr. (See Machinery Wanted—Road Construction.)

SEWER CONSTRUCTION

D. C., Washington.—District Comrs., 509 District Bldg., will construct storm-water receiving basins; 12 basins and 200 lin. ft. 12-in. diam. pipe sewer connections; bids until May 1. (See Machinery Wanted—Sewer Construction.)

D. C., Washington.—District Comrs., 509 District Bldg., will construct \$5700 lin. ft. masonry sewers, 3 to 8-ft. span; also 5800 lin. ft. pipe sewers, 10 to 24-in. diam; bids until May 19. (See Machinery Wanted—Sewer Construction.)

Fla., Perry.—City votes May 15 on \$20,000 bonds to extend sewers and water mains. Address The Mayor.

Ky., Paris.—City contemplates construction of about 1½ mi. sanitary sewer, cost \$10,000; plans not yet definite. Address The Mayor. (Lately noted contemplating vote on \$10,000 bonds.)

Md., Mt. Rainier.—City, Peter J. Hagen, Clk., asks bids until May 25 to construct 10 mi. 8 to 12-in. sanitary sewers; Engr. Harry Stevens, Union Trust Bldg., Washington, D. C. See Water-Works. (See Machinery Wanted—Water-Works and Sewer Construction.)

Mo., Huntsville.—City engaged E. T. Archer & Co., 514 New England Bldg., Kansas City, as engineers for construction of sewer system and water-works; now preparing preliminary plans.

Mo., Mexico.—City engaged Black & Veatch, 507 Inter-State Bldg., Kansas City, as engineers for improvements to sewer system; voted \$12,000 bonds. (Lately noted.)

N. C., Beaufort.—City, C. H. Bushall, Clerk, let contract to Mishler & Flynn, Chattanooga, Tenn., for sewer construction and laying water pipes. See Water-Works. Engr. Gilbert C. White, Charlotte and Durham, N. C. (Bids lately noted.)

Okla., Altus.—City voted \$15,000 bonds for construction sewage-disposal plant; plans and specifications by Benham Engineering Co., Colcord Bldg., Oklahoma City; bids to be asked. (Noted in March.)

Okla., Okemah.—City, J. B. Poynter, Mayor, contemplates vote on \$55,000 bonds to construct sewer system; Benham Engineering Co., Consol. Engr., Colcord Bldg., Oklahoma City.

Okla., Tulsa.—City will construct sanitary sewer in Sewer Districts Nos. 14, 61, 107, 114 and 120; also sanitary sub-main sewer in Brady St.; bids until April 30; H. H. Wyss, City Engr. (See Machinery Wanted—Sewer Construction.)

Okla., Yale.—City will construct sanitary sewer system; cost \$30,000; date for opening construction bids not set; Mr. Pressey, Engr. in charge, address care of City Engineer's Office, Oklahoma City, Okla. (Bonds lately noted voted.)

S. C., Easley.—City voted \$20,000 bonds to construct sewer system. Address The Mayor. (Lately noted.)

Tex., Cooper.—City let contract to Winslett-Eldridge Co., Dallas, Tex., to construct sanitary sewer system; amount of bid \$17,957; cost of disposal plant \$5000; H. E. Elrod, Dallas, Tex., Engr. (Bids lately noted.)

Va., Abingdon.—City, Geo. F. Grant, Mayor, contemplates installation of sewerage system, including disposal plant. (See Machinery Wanted—Sewage Disposal.)

W. Va., Martinsburg.—City votes May 8 on \$25,000 bonds to construct storm sewers. P. W. Leiter, Mayor.

TELEPHONE SYSTEMS

D. C., Washington.—Chesapeake & Potomac Telephone Co., 723 12th St. N. W., will reconstruct building; cost \$35,000; Andrew Murray, Contr., 729 12th St. N. W., Washington.

Ky., Williamsburg.—Whitley County Telephone Co., capital \$3000, incptd. by R. B. Tyee, C. A. Terrell and C. A. Johnson.

TEXTILE MILLS

Ga., Columbus.—Cotton Cloth.—Meritas Mills will erect 125x100-ft. addition to No. 3 building, 284x130 ft., under construction; slow-burning mill construction; also build 2-story 90x90-ft. fireproof office addition with sprinkler system; let contract to T. C. Thompson & Bros., Birmingham, Ala.

Ga., Lagrange.—Silk.—Ellsworth & Co. leased south end of Security Warehouse; will remodel and install silk-spinning mill.

Md., Frostburg.—Hosiery.—Parker Hosiery Mills & Dye Works Co., Portsmouth, Va., Olin R. Rice, Frostburg, Mgr., will build additional mill; purchased 165x145-ft. site; con-

struct 2-story 150x80-ft. fireproof building; space for 1000 knitting machines; electric drive; electric lights; steam heating; sanitary toilet installations; daily capacity 200 doz. pairs hosiery; plant cost \$200,000.

S. C., Orangeburg.—Cotton Goods.—Santee Mills, capital \$225,000, incptd. by Wm. Elliott, Jas. H. Fowles and E. W. Mullins, all of Columbia.

Tenn., Chattanooga.—Bleached Cotton Products.—Lookout Bleaching Co. incptd. with \$75,000 capital by Mercer Reynolds, Geo. M. Guild, L. C. Smallwood and others.

Tenn., Chattanooga.—Hosiery.—Mountain City Knitting Co. chartered with \$15,000 capital by E. A. Magill, W. T. Temple, G. F. Thomas, and others; build hosiery-knitting mill.

Tenn., Cleveland.—Hosiery.—O. A. Knox will establish hosiery-knitting mill; leased building; purchased machinery.

WATER-WORKS

Fla., Branford.—City considering construction of water-works; citizens appointed committee to investigate. Address Secy. of Water-Works Committee.

Fla., Perry.—City votes May 15 on \$20,000 bonds to extend water mains and sewers. Address The Mayor.

Mo., Kirksville.—City is having plans prepared for improvements to water-works and electric-light plant; cost \$118,000; will vote on bonds May 4; construct 27,250 ft. 12-in. pipe line, etc.; Steven Hall, Engr. Lately noted. (See Electric Plants.)

Md., Mt. Rainier.—City, Peter J. Hagen, Clk., asks bids until May 25 to construct 10 mi. 8 to 12-in. sanitary sewers; 10 ml. water-mains, 4 to 8-in. diam.; water-works, pumping-station, and steel tank and tower; Consulting Engr. Harry Stevens, Union Trust Bldg., Washington, D. C. (See Machinery Wanted—Water-Works and Sewer Construction.)

Mo., Huntsville.—City engaged E. T. Archer & Co., 514 New England Bldg., Kansas City, as engineers for construction of water-works and sewer system; now preparing preliminary plans.

N. C., Beaufort.—City, C. H. Bushall, Clerk, let water-works and sewer construction contracts; Mishler & Flynn, Chattanooga, Tenn., for sewer construction and laying water pipes; Glamorgan Pipe & Foundry Co., Lynchburg, Va., cast-iron pipe; Chicago Bridge & Iron Works, Chicago, tower and tank; Gilbert C. White, Charlotte and Durham, N. C., Engr. (Bids lately noted.)

Okla., Ada.—City, E. S. Ratliff, Mayor, will vote on \$60,000 bonds to improve water system; include construction of new reinforced concrete flume for water-power plant and 500,000-gal. elevated tank; Benham Engineering Co., Consol. Engr., Colcord Bldg., Oklahoma City.

Okla., Checotah.—City, J. E. Lucas, Jr., City Clerk, asks bids until April 30 on water-works extensions; includes filtration plant of 1,000,000-gals. daily capacity, pumps, 4-panel switchboard, pumping station building, settling basin, clearwell; reinforced concrete reservoir, and 1200 tons 10-in. and 12-in. cast-iron pipe; Benham Engineering Co., Colcord Bldg., Oklahoma City, Engr. Noted in March. (See Machinery Wanted—Water-works Extensions.)

Okla., Madill.—City, A. P. Marsh, Mayor, will vote May 3 on \$50,000 bonds for water system improvement; to include extension of mains and provide additional storage; Benham Engineering Co., Consol. Engr., Colcord Bldg., Oklahoma City. (Noted in March.)

Okla., Stratford.—City voted \$4000 bonds to construct water-works. Address The Mayor. (Lately noted.)

Okla., Vian.—City, A. G. Arnold, Prest. Board, contemplates water-works extension, including concrete dam across Vian Creek; to impound 2,500,000 gals.; may install pump; date for construction bids not set; lately noted to vote on \$10,000 bonds. (See Machinery Wanted—Water-works Equipment.)

Okla., Wapanucka.—City contemplates improvements to water-works and electric-light plant. Address The Mayor.

Tex., Corsicana.—City votes April 30 on \$50,000 bonds to construct water-works. Address The Mayor. (Lately noted.)

W. Va., Martinsburg.—City votes May 8 on \$5000 bonds to improve and extend water-works. P. W. Leiter, Mayor. (Lately noted.)

WOODWORKING PLANTS

Ark., Cotter-Staves.—I. P. Jones will install stave mill; purchased machinery.

Ga., Omega-Shingles.—L. Alexander and A. P. Cox purchased yellow pine timber and will install mill with daily capacity 30,000 shingles.

Miss., Crowder — Cooperage. — Yacona Cooperage Co. let contract to Unit Construction Co., Title Guaranty Bldg., St. Louis, to build drykilns of reinforced concrete and hollow-tile construction.

Miss., Vicksburg.—Hoops.—J. A. Powell and A. E. Disher of Dexter, Mo., will build hoop mill and veneer plant.

Tex., Niles City.—Cooperage.—Howell Cooperage Co. will rebuild plant burned at loss of \$10,000.

FIRE DAMAGE

Ala., Mobile.—Thomas F. Groom's residence; loss \$5,000.

Ala., Mobile. — Barn, reservoir and out-houses at Tunstall Dairy, Mertz Station; loss \$14,000.

Ala., Plantersville.—John W. Pickering's residence; loss \$3,000.

Ark., Dierks.—R. M. Garrison's restaurant; Henderson Bldg.; loss \$5,000.

Ark., Eureka.—Rosser Art Studio and 9 dwellings; loss \$20,000.

Ark., Texarkana.—Mrs. R. L. Harris' residence; loss \$7,000.

Fla., Tampa.—Dr. L. A. Bize's 3 dwellings; Contractor Dorey's residence; J. H. Vernon's residence; all in Gary; loss \$5,000 to \$6,000.

Ga., Chipley.—United Mfg. & Warehouse Co.'s warehouse, owned by Floyd & Hill Co.; loss \$5,000.

Ga., Vienna.—Mrs. M. L. Middleton's residences occupied by Grady Hogg and Mrs. W. E. Tripp.

Ky., Clinton.—F. W. Brock's residence.

Ky., Mayfield.—Elmer Tripp's residence.

Md., Baltimore.—Public School No. 54 on Twenty-fifth St., between Charles and St. Paul Sts.; loss \$100,000; James H. Preston, Mayor.

Md., Baltimore.—Heineken Reduction Co.'s fertilizer factory; loss \$10,000; Nicholas G. Penniman, Managing Director.

Md., Cockeysville.—H. E. Bartleson's lumber yard and store, owned by Mrs. Bessie M. Merryman; Leutz & Duncan's store, owned by Joshua F. Cockey; reported loss \$40,000.

Md., Millersville.—Anne Arundel Academy; loss \$10,000.

Miss., Meridian.—Southern Railway's coach shop; loss \$100,000; B. Herman, Engr., Charlotte, N. C.

Miss., Moorhead.—Manual-training building of Sunflower County Agricultural High School; loss \$5,000.

N. C., Kinston.—Wolfe Adler's residence; loss \$5,000.

N. C., Spray.—J. B. Redmond's livery stables; Dr. Karl von Rusk's residence, occupied by W. R. Lynch; estimated loss \$15,000.

N. C., Tyro.—Baxter Leonard's flour mill, saw mill, lumber yard, etc.; J. C. Davis' store; total estimated loss \$10,000.

S. C., Gadsden.—Julius H. Adams' barn and stables; estimated loss \$4,000.

S. C., Johnsonville.—A. Javo Prosser's residence.

S. C., St. Matthews.—J. L. Carroll's barn; G. W. Ruff's gin; loss \$3,000.

S. C., Society Hill.—S. J. Warriner's residence.

S. C., Sumter.—Residences of A. G. Fishburne, Judge T. B. Fraser and John A. Scarborough.

Tenn., Cleveland.—J. W. Weaver's residence near Cleveland.

Tenn., Harriman.—J. H. Watts' residence; loss \$3,000.

Tenn., Lebanon.—Gulf Red Cedar Co.'s plant; loss \$25,000.

Tex., Celina.—R. L. Clayton's water and light plant; loss \$16,000.

Tex., Dallas.—J. D. Jenkins' residence; loss \$4,000.

Tex., Denton.—W. R. Graham's building; loss \$10,000.

Tex., Dublin.—Farmers' Union Warehouse Co.'s building; Utterback & Harris' livery barn; Shugart Drug Co.'s store; Will Sneed's grocery store; loss \$11,000.

Tex., Mount Calm.—S. S. Redd's residence, 5 mi. from Mount Calm, owned by C. T. Shilling.

Tex., New Market.—J. C. Kinney's residence; loss several thousand dollars.

Tex., San Antonio.—Moody's Sanitarium; estimated loss \$35,000.

Va., Altavista.—Altavista High School; loss \$10,000. Address School Board.

Va., Drewry's Bluff.—Mrs. Mary S. Danner's residence on Petersburg turnpike; loss \$5,000.

Va., Lynchburg.—Main Cafe, 908 Main St., building owned by Jas. R. Gilliam; loss \$5,000.

Va., Staunton.—B. O. Blackford's residence; loss \$4,000.

W. Va., Pennsboro.—Knights of Pythias building, loss \$7,000; McCullough building, owned by Ramsey & Corra, West Union, W. Va., loss \$4,000; E. B. Pratt's plumbing shop, loss \$3,500; R. E. Pratt's store, loss \$3,500; Heyman Polan's store, loss \$3,000; Charles Fahal's store, loss \$3,000.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Fla., Jacksonville.—College Apartment Corporation will erect apartment-house at Lombardy and Grace Sts.; 3 stories; brick; Mansard tile and slag roof; steam heat; electric lights; cost \$44,000.

Fla., Miami.—J. N. Chamberlain contemplates erecting 5 additional stories to Chamberlain Apartments.

Fla., Miami.—Frank Gallat will erect apartment-house; 3 stories; cost \$30,000.

Fla., Miami.—F. M. Brown will erect apartment-house; 7 stories; cost \$40,000; E. A. Nolan, Archt., Miami.

Fla., Miami.—W. H. Harris will erect apartment-house in Fort Dallas Park.

Fla., West Palm Beach.—Dr. E. Frances Rowe will erect apartment-house.

Ga., Atlanta.—H. W. Johns-Manville Co., New York, is reported to erect 2 apartment-houses.

Ga., Atlanta.—E. L. Douglas is having plans prepared by Haralson Bleckley, Third National Bank Bldg., Atlanta, for apartment-house; estimated cost \$50,000.

Ga., Atlanta.—Albert Howell, Jr., Connally Bldg., will erect addition to Ponce de Leon Apartments, practically duplicate of present structure; 80x120 ft.; steel or reinforced concrete construction; concrete and tile floors; steam vapor heat; cost \$40,000; architect or contractor not selected. (Fulton Properties Co. lately noted to erect this structure.)

Mo., Kansas City.—F. Schiboby will erect 3-story brick flat; cost \$15,000.

Mo., Kansas City.—W. P. M. Stevens, 614 Grand Avenue Temple, will erect store and apartment-house. (See Stores.)

Mo., Kansas City.—W. H. Hill will erect apartment-house; 18 kitchenette suites; F. H. Michaelis, Archt., Kansas City.

Mo., Kansas City.—L. Blaschley will erect two 2-story brick flats; cost \$18,000.

N. C., Charlotte.—Mrs. Latta C. Johnston has plans by L. L. Hunter, Charlotte, to erect apartment-house; tapestry brick veneer; hot-air heat; hot and cold water; cost \$20,000; bids being estimated.

Okla., Bristow.—W. T. Allen will erect apartment-house lately noted; 34x68 ft.; frame; stucco finish; shingle roof; wood floors; natural gas heat; electric lights; cost \$4,000; J. L. Cunningham, Archt., P. O. Box 265, Bristow; day labor. (See Machinery Wanted—Building Materials.)

Okla., Tulsa.—L. E. Z. Aaronson, lately noted to erect \$150,000 apartment-house, states: "Plans for building not yet definitely decided."

Tex., Dallas.—J. R. Hickman will erect apartment-house; 2 stories; 20 rooms; brick veneer; cost \$17,500.

Tex., Dallas.—Miss Birdie Tucker has plans by C. W. Bulger & Son, Praetorian Bldg., Dallas, for apartment-house; 2 stories; 16 rooms; frame; composition roof; pine and oak floors; gas and electric fixtures; cost \$8,000.

Tex., Dallas.—F. C. Winants will erect apartment-house; 36x46 ft.; frame; shingle roof; quarter-sawn pine floors; natural-gas heat; electric lights; cost \$3,500; plans and construction by owner. (Lately noted under Dwellings.)

Tex., El Paso.—Tom B. Newman will erect 2-story tenement; cost \$8,000.

Tex., El Paso.—John Stratton will erect brick apartment-house; cost about \$25,000.

Tex., Houston.—E. Houck will erect apartment-house; 3 stories; brick; cost \$8,000.

Tex., San Antonio.—Robert Duncan will erect 2-story apartment-house; cost \$8,000.

Va., Norfolk.—August Coster will erect 4-family brick flat; cost \$3,000; also storage shed, \$500.

Va., Richmond.—College Apartment Corporation will erect 3-story brick apartment-house at Lombardy and Grace Sts.; cost \$44,000.

ASSOCIATION AND FRATERNAL

Fla., Jacksonville.—B'nai B'rith Lodge is considering erecting lodge building.

Mo., Joplin.—Y. M. C. A. will erect \$250,000 structure.

Okla., Mangum.—A. F. & A. M. will erect lodge building; 2 stories; 50x100 ft.

Okla., Norman.—Kappa Alpha Fraternity will erect brick lodge building; cost \$20,000.

W. Va., Huntington.—Y. M. C. A. plans to erect building; 100x185 ft.; 5 stories; cost \$120,000; equipment, \$30,000; brick; C. W. Campbell, Chrmn. Building Com.

BANK AND OFFICE

D. C., Washington.—Security Savings & Commercial Bank, Geo. H. Linkins, V-P, 9th and G Sts. N. W., will remodel building at 705 9th St. N. W. for addition to bank building; install ornamental terra-cotta front, etc.; cost \$12,000.

D. C., Washington.—Commercial National Bank, 14th and G Sts., will soon let contract to erect bank and office building; plans by Waddy B. Wood, 816 Connecticut Ave. N. W., Washington, call for 11 stories; 75x100 ft.; fireproof; Indiana limestone with polished granite base; vault and 25,000 safety-boxes in basement; elevators; vapor vacuum system of heat; banking-room on first floor 40 ft. high, finished in Botticini marble with metal ceiling; Western Union Telegraph Co.'s office also on first floor to be finished in marble; mezzanine reached by private elevator; upper floors for offices; completion by March 1, 1918. (Lately noted.)

Ga., Atlanta.—Federal Reserve Bank, M. B. Wellborn, Chrmn. of Board, receives bids until May 24 for labor and material to erect bank building, including heating, plumbing, wiring, lighting fixtures, vault and other equipment; plans by A. Ten Eyck Brown, 607-10 Forsyth Bldg., Atlanta, call for fireproof building; marble or granite; about 70x98 ft.; main floor, mezzanine floor, 2 mezzanine galleries and basement; interior finish of marble, mahogany and bronze; cost \$150,000 to \$200,000; drawings and specifications at office of architect. (Lately noted.)

Ky., Ashland.—Ashland National Bank, 16th and Winchester Sts., is having plans prepared by G. W. Drech, Union Trust Bldg., Cincinnati, for bank and office building; 4 to 8 stories; 50x130 ft.; reported cost \$300,000. (Lately noted.)

Md., Baltimore.—Furness-Withy & Co., Arthur F. Sidebotham, Mgr., 317-21 Chamber of Commerce, will erect \$50,000 office building at 19-23 South St.; 2 stories; 55x145x49 ft.; following contractors estimating: Consolidated Engineering Co., 243-255 Calvert Bldg.; Cogswell-Koether Co., 406 Park Ave.; Price Concrete Construction Co., 210 Maryland Trust Bldg.; Clarence E. Stubbs, 548 Equitable Bldg.; H. D. Watts, 904-06 Garrett Bldg.; West Construction Co., Knickerbocker Bldg.; Charles L. Stockhausen Co., Marine National Bank Bldg.; D. M. Andrew Co., Mt. Vernon Ave. and 26th St.; J. H. Miller, Inc., Eutaw and Franklin Sts.; Singer-Pentz Co., 600 Equitable Bldg.; all of Baltimore; E. H. Glidden, Archt., Garrett Bldg., Baltimore. (Lately noted.)

Tenn., Chattanooga.—C. E. James has plans, it is reported, by R. H. Hunt, Chattanooga, for 12-story addition to James Bldg., extending north wing of building back 60 ft.; steel, concrete and brick; all halls in north wing extended through new section; 48 rooms.

Tex., McKinney.—Continental State Bank is having plans prepared by Sparger & Peters, Bonham, Tex., for bank building; 2 stories and basement; 30x80 ft.; materials

include stone or terra cotta, structural and reinforcing steel, face and common brick, composition roof, concrete and tile floors, fireproofing, plate and prism glass, metal partitions, stone cornice, electric fixtures; steam or hot-water heat; cost \$30,000. (Previously noted.)

Tex., Texarkana.—Texarkana Chamber of Commerce adopted plans by Stewart Moore for remodeling Offenhausser Bldg. for offices.

CHURCHES

Ark., Cotton Plant.—Baptist Church plans to erect parsonage. Address The Pastor.

Ark., Earle.—Baptist Church will erect \$10,000 brick building; construction under supervision Rev. A. P. Schofield, Pastor. (Previously noted.)

Fla., Alachua.—First Baptist Church opens bids about May 15 to erect building; 48x50 ft.; brick; Johns-Manville asbestos roof; dry-air heat; cost \$7,500; Bryan & Potect, Archts., 11-12 Hardin Bldg., Lakeland, Fla.

Fla., Daytona Beach.—Daytona Beach Methodist Church will enlarge auditorium; cost \$6,500; Jesse N. Gamble, Smith G. Young and others, Com.

Fla., Miami.—Trinity Episcopal Church will erect parish-house and complete interior; also install pews and pipe organ; F. N. Rogers, Secy. Board of Vestrymen.

Fla., Sanford.—First Baptist Church is having plans prepared by E. J. Moughton for building; 67.6x53 ft.; brick; tile roof; cost \$8,000. (Lately noted.)

Ga., Jeffersonville.—Baptist Church is having plans prepared by Jas. J. Baldwin, Anderson, S. C., for building; 12 rooms; seating capacity about 500; brick; composition or metal roof; wood floors; furnace heat; electric lights; cost \$10,000; Rev. J. B. T. Anderson, pastor. (Lately noted.)

Ga., Tifton.—Primitive Baptist Church has plans by C. W. Fulwood, Jr., Moultrie, Ga., for building; seating capacity, 350; brick; slate roof; wood-joint floors; cost \$10,000; steam heat, about \$500; bids opened June 10; construction begins June 25. Address Archt. (Previously noted.)

Ky., Lexington.—Centenary Methodist Episcopal Church, Rev. Thomas Burroughs Roberts, Pastor, will erect Sunday-school building; Martin Geretz, Archt., Lexington.

N. C., Holly Springs.—Holly Springs Baptist Church, W. H. Norris, Chrmn. Building Com., is reported having plans prepared by W. A. Rayfield & Co., P. O. Box 649, Birmingham, Ala., for building; 50x90 ft.; metal shingle roof; ordinary construction; hot-air heat; electric lights; cost \$10,000; day labor; bids opened May 15. Address architects.

Okla., Altus.—T. M. Robinson, Pres. Building Com. of Methodist Church, receives bids until May 10 to erect building; Hawk & Parr, Archts., Oklahoma City.

Okla., Heavener.—First Baptist Church, Rev. W. J. Naylor, Pastor, is reported having plans prepared by W. A. Rayfield & Co., P. O. Box 649, Birmingham, Ala., for building; 50x95 ft.; ordinary construction; slate roof; pine floors; hot-air heat; electric lights; cost \$10,000; day labor; bids opened May 1. Address architects.

Okla., Hillsdale.—Congregational Church will erect building; brick; cost \$6,000. Address R. Fope.

Okla., Mead.—Presbyterian Church will erect building; brick; 40x60 ft.; cost \$15,000. Address The Pastor.

Tex., Gainesville.—Grand Avenue Baptist Church, R. H. Seabough, Pastor, 621 N. Clement St., will erect building; 50x100 ft.; hollow tile and brick; details not decided; construction begun April 25. (Lately noted.)

Tex., Houston.—Trinity Episcopal Church, Rev. Clinton S. Quin, Rector, has plans by Wm. Ward Watkin of Cram & Ferguson, Houston, for church and parish-house; main church auditorium 45x120 ft.; Gothic style; seating capacity 600; parish-house with auditorium to seat 400; 20 classrooms, kitchen, lavatory, etc.; cost \$75,000.

Tex., Orange.—Luther Memorial Presbyterian Church will erect chapel to seat 100. Address The Pastor.

Tex., Quanah.—Methodist Church will erect building; stone construction; exterior finished in white pebble dash; 102x73 ft. Address The Pastor.

Tex., Yoakum.—First Methodist Church receives bids until April 30 to erect \$30,000 brick church building; plans and specifications from L. L. Stephenson, Yoakum, and Finger & Bailey, Archts., Houston, Tex. (Lately noted.)

Va., Richmond.—Riverview Baptist Church, colored, will remodel building; cost about \$10,000. Address The Pastor.

Va., Richmond.—Branch Memorial Methodist Church has plans by Wm. C. West, Richmond, for annex to building; red brick; 19 classrooms and auditorium, with combined capacity of 600 people; gymnasium, kitchen, etc.; J. D. Laughlin, Chrmn. Building Com. (Lately noted.)

W. Va., Charleston.—Lee Street Christian Church, Rev. Sam W. Crabtree, Pastor, is having plans prepared by W. H. Sinclair for building; 46x55 ft.; granite; terra-cotta or oolitic limestone trim; tile roof; hot-water heat; inverted electric lighting; main auditorium to have Gothic windows fitted with art glass and ventilators; seating capacity 500 to 600; basement 7 ft. above grade.

CITY AND COUNTY

Fla., Arcadia.—City Hall.—City is receiving bids to erect city hall; cost \$11,000. Address The Mayor. (Previously noted.)

Okla., Cheyenne.—Jail and Courthouse.—Roger Mills County defeated \$50,000 bonds to erect courthouse and jail. (See Court-houses.)

Okla., Duncan.—Jail.—Stephens County will probably vote on bonds to erect jail and courthouse. Address County Commrs.

S. C., Greenwood.—Library.—Trustees of Carnegie Free Library rejected bids to erect Carnegie library; will have plans revised and call for new bids; J. E. Sumner and J. C. Hemphill, Archts., Greenwood; Mayor A. S. Hartzog, Chrmn. (Lately noted.)

Tenn., Knoxville.—Auditorium, Parks, etc. City will vote on bonds for Greater Knoxville. (See Schools.)

W. Va., Martinsburg.—Jail.—Jefferson County Commrs. will soon call for bids to erect jail building; estimated cost \$50,000.

W. Va., Martinsburg.—Fire Stations.—City votes May 8 on \$25,000 bonds to erect buildings and purchase equipment for fire department; P. W. Leiter, Mayor. (Lately noted.)

COURTHOUSES

Ala., Jasper.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., receives bids until May 28 to erect courthouse and postoffice. (See Government and State.)

La., St. Martinville.—St. Martin Parish Police Jury will expend \$25,000 to remodel courthouse.

Okla., Cheyenne.—Roger Mills County defeated \$50,000 bonds to erect courthouse and jail. (Lately noted.)

Okla., Duncan.—Stephens County will probably vote on bonds to erect courthouse and jail. (See City and County.)

DWELLINGS

Ala., Birmingham.—Stockham Pipe Co. will erect ten 1-story frame tenements; cost \$4000.

Ala., Birmingham.—Nat G. Clark is having plans prepared by Wm. Leslie Welton, American Trust Bldg., Birmingham, for brick residence.

Ala., Gadsden.—B. W. Pruet will erect residence; 10 rooms; brick veneer; slate roof; hardwood floors; furnace heat; cost \$10,000; A. D. Simpson, Archt. (Lately noted.)

Ark., Harrison.—F. R. Mitchell is reported having plans prepared by W. A. Rayfield & Co., P. O. Box 649, Birmingham, Ala., for residence; 35x55 ft.; ordinary construction; asbestos shingle roof; pine floors; steam heat; electric and gas lights; cost \$8000; bids opened May 1; construction begins May 10. Address architects.

Ark., Marianna.—C. E. Hefner will erect residence.

Ark., Marianna.—W. Friedman will erect residence.

Ark., Marianna.—W. L. Osborne, Marshalltown, Iowa, will erect brick-veneer residence.

Ark., Round Pond.—C. Fleming will erect residence.

D. C., Washington.—B. H. Gruver, 616 Union Trust Bldg., will erect 8 residences on Whittier St. N. W.; 26x40 ft.; frame; shingled and brick; asphalt shingle roof; oak floors; cost \$35,000; hot-water heat, \$2500; electric lighting, \$800; Geo. T. Santmyers, 921½ New York Ave. N. W., Washington; construction by owner; all sub-contracts let. (Lately noted.)

D. C., Washington.—Mildred P. Garnett has plans by Clarke Waggaman, 1213-A Connecticut Ave. N. W., Washington, for remodeling residence dwelling, 1612 21st St. N. W.; cost \$8000.

D. C., Washington.—Foxall Heights Co. has plans by C. S. Salin, 3929 14th St. N. W.,

Washington, for frame dwelling, 1412 H St. N. W.; cost \$3000.

Fla., Jacksonville.—G. F. Snead will erect 2-story brick dwelling; cost \$4400.

Fla., Plant City.—Mrs. Helen S. McGilbray, Chicago, is reported to erect residence.

Fla., St. Petersburg.—Misses Edith and Grace Hill will erect brick-veneer 8-room residence; bungalow type; interior finish of oak; coil hot-water system of heat; also erect brick-veneer garage; total cost \$10,000; W. J. Aries in charge of construction. (Lately noted.)

Ga., Atlanta.—J. F. Evans will erect \$3000 dwelling.

Ga., Atlanta.—J. S. and C. R. Collins will erect residence; cost \$3250; day labor.

Ga., Valdosta.—J. N. Griffin contemplates erecting 2 bungalows in addition to 2 under construction.

Ky., Ashland.—Simon Harris will erect brick dwelling at 22nd and Winchester Sts., and later erect business building 50x55 ft. on front of same lot.

Ky., Krypton.—Jameson Coal Co. will soon let contract to erect 32 miners' houses.

Ky., Winchester.—Dr. Walter Lyon will erect residence.

Md., Baltimore.—R. G. Sheppard has plans by J. P. Hardy, 4200 Groveland Ave., Baltimore, for 2-story dwelling at Garrison Blvd. and Hawthorne Ave.; cost \$6100.

Md., Baltimore.—Dr. R. H. Peters, 1337 Mt. Royal Ave., leased double building at 122-24 W. Franklin St.; will expend \$7000 to \$8000 to repair, remodel, install plumbing, etc.; James Posey, Consult. Engr., Fidelity Bldg., Baltimore.

Md., Baltimore.—Cityco Realty Co., 2 E. Lexington St., has plans by Stanislaus Russell, 2900 Clifton Ave., Baltimore, for eleven 2-story dwellings, 3614-3634 Cottage Ave.; 21x36 ft.; brick; cost \$30,000.

Md., Baltimore.—Frank Novak Realty Co., Harford Rd. and B. & O. R. R., will erect eighty 2-story dwellings on Falls Rd. and 42d St.

Md., Catonsville.—Geo. W. Knapp is having plans prepared by Edward L. Palmer, Jr., 1620 Munsey Bldg., Baltimore, for alterations and additions to residence on Hilton Estate.

Mo., Kansas City.—R. C. Allen will erect residence.

Mo., Kansas City.—Tom Dasta will erect 2-story brick dwelling and garage; cost \$4000.

Mo., Kansas City.—D. P. Ferguson will erect stucco and brick veneer dwelling; also 1-story frame dwelling; cost \$4500.

Mo., Kansas City.—H. S. Bill will erect 2 1-story frame dwellings; cost \$3600.

Mo., Kansas City.—Hlatt Investment Co. will erect 7 2-story stucco and brick-veneer dwellings, 117-21 and 112-18 N. Lawn St.; cost \$17,500.

Mo., Kansas City.—Townley Culberson, V.-P., Commerce Trust Co., will erect residence; colonial style; brick; plans in progress.

Mo., Kansas City.—D. Jeffries will erect 7 stucco and frame dwellings; two 2 stories, two 1½ stories, three 1 story; cost \$21,000.

Mo., Kansas City.—H. H. Watts, Prest. Watts Optical Co., will erect residence in Mission Hills.

Mo., Kansas City.—Zurn Building Co. will erect 17 dwellings at 37th and Bellefontaine Ave.

Mo., Kansas City.—Gus Agee will erect two 2-story stone and brick-veneer dwellings, 304 N. Lawn St. and 342 N. Van Brunt St.; cost \$8000.

Mo., Kansas City.—Samuel Dustin will erect 2-story brick dwelling; cost \$4000.

N. C., Asheville.—H. C. Hudson will erect 8-room residence; cost \$5000.

Okla., Bliss.—Bliss Oil & Development Co. will expend \$100,000 to erect buildings in connection with development of town.

Okla., Chickasha.—Macklin & Faught receive bids to erect 3 frame and 2 brick-veneer dwellings; contract to be let for 5 dwellings as in one contract; separate bids on concrete driveways, walks, cisterns, etc.; plans and specifications on application.

Okla., Muskogee.—J. H. Melton will erect \$35,000 residence.

Okla., Tulsa.—R. E. Downing lets contract about May 10 to erect residence; 40x48 ft., exclusive of porches; brick, stone and concrete; wood joists; tile roof; city electric lights; cost \$20,000; hot-water heat, \$3000; John V. Starr, Archt., Tulsa.

S. C., Anderson.—John B. Humbert, Supt. Orr Mills, will erect residence; cost about

\$8000; day labor; Casey & Fant, Archts., Anderson.

S. C., Greenville.—H. M. Roswell will erect \$4000 residence.

Tex., Dallas.—Sue C. Lynch will erect 8-room 2-story frame residence; cost \$3000.

Tex., Dallas.—W. L. Burnett will erect 10-room 2-story frame residence; cost \$4000.

Tex., El Paso.—P. H. Hadfield will erect 4 bungalows; cost \$10,000.

Tex., Ennis.—Sanguinet & Staats, Fort Worth, and M. C. Parker, Ennis, prepared plans for residence and garage; 2 stories; basement; 10 rooms; brick and tile walls; tile, asbestos shingle or asphalt roof; hardwood, pine and tile floors; hot-air heat; cost \$15,000; bids opened Apr. 25. Address Mr. Parker. (See Machinery Wanted—Heater (Water)—Building Materials.)

Tex., Fal.—Lutcher & Moore Lumber Co., Orange, Tex., will develop town of Fal; erect 100 dwellings; 1 to 6 rooms; 1 story; also 2-story boarding-house; T. A. Howell, Archt. and Builder; A. J. Willison, Civil Engr.

Tex., Houston.—J. S. Cullinan will erect \$50,000 residence; garage and stables to cost \$12,500 each.

Tex., Houston.—Houston Land Corporation will erect residence; 9 rooms; frame and stucco; cost \$5000.

Tex., Quanah.—J. H. McDonald will erect residence.

Tex., McKinney.—A. M. Scott has plans by Sparger & Peters, Bonham, Tex., for residence; 2 stories; 8 rooms; tile and stucco; asphalt roof; oak and pine floors; brick or tile mantels; warm-air heat; cost \$7000.

Tex., Vernon.—Bob Moore will erect \$10,000 brick residence.

Va., Richmond.—Realty & Finance Corporation will erect two 2-story frame-stucco dwellings; cost \$8000.

W. Va., Huntington.—W. W. Smith is having plans prepared by Dean & Bray, Huntington, for bungalow at Hall Hill.

W. Va., Huntington.—P. S. Marcum is having plans prepared by Dean & Bray, Huntington, for 8-room dwelling in Marcum addition.

W. Va., Martinsburg.—A. Snyder, 141 N. Queen St., will erect lately-noted double dwelling; 31.9x51.9 ft.; brick; slate roof; hardwood floors; electric lights; cement sidewalks; construction begins in about 2 weeks. (See Machinery Wanted—Brick; Heating Plant.)

W. Va., Moundsville.—Charles Hughes will erect residence on 6th St.

W. Va., Moundsville.—Samuel Dorsey will erect residence on Washington Ave.

GOVERNMENT AND STATE

Ala., Jasper.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., opens bids May 28 to erect postoffice and courthouse; drawings and specifications from custodian of site at Jasper and Mr. Wetmore as above.

Fla., Key West.—Officers' Quarters.—Bureau of Yards and Docks, Navy Dept., Washington, D. C., F. R. Harris, Chief, receives bids until May 14 to erect wood-frame building, 32x25.6 ft., with sewer, water and lighting systems, at the distant control naval radio station, Key West; drawings and specifications (2363) on application to Bureau.

La., New Orleans.—Storage Shed.—Bureau of Yards and Docks, Navy Dept., F. R. Harris, Chief, Washington, D. C., opens bids May 14 to erect storage shed at Naval Station; plain concrete pier footings on wood piles; steel framework; galvanized corrugated steel sides; wood sheathing covered with built-up roofing; 180x115 ft.; plans and specifications (2365) on application.)

Miss., Gulfport.—Educational Building.—Mississippi Centennial Exposition Com. will erect educational building; 2 stories; 80x120 ft.

Miss., Laurel.—Soldiers' Home.—State will erect 2 dormitories at Confederate Soldiers' Home at Beauvoir, Miss.; Theodore G. Bilbo, Governor, Jackson, Miss.

Okla., Altus.—Postoffice.—Treasury Dept., James A. Wetmore, Acting Supervising Archt., Washington, D. C., receives bids until June 1 to erect postoffice; drawings and specifications obtainable from office of Mr. Wetmore as above, and custodian at site.

Okla., Chillicothe.—Cottage.—Cato Sells, Commissioner of Indian Affairs, Washington, D. C., receives bids until May 14 for material and erecting stone employee's cottages; plans and specifications at office Kansas City

(Mo.) Star; United States Warehouse, Chicago; Builders Exchange, St. Paul, Minn., and Supt. Chillicothe Indian School, Chillicothe.

Okla., Helena.—Home.—State Board of Affairs, Oklahoma City, will establish West Oklahoma Home for White Children and expend \$25,000 to acquire additional land, erect building, remodel present Connell School of Agriculture, etc.

S. C., Lancaster.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., opened bids to erect postoffice; Wm. J. Brent, Norfolk, low bidder at \$39,452. (Lately noted.)

Tex., Beaumont.—Barracks.—Magnolia Oil Refinery Co. will erect barracks at Camp Magnolia for Company M; building to be 300x50 ft., containing dormitory, mess hall, kitchen, reading-room, armory, shower baths, electric lights, etc.

Tex., Jasper.—Postoffice.—J. M. Orton will erect building for postoffice. (See Stores.)

W. Va., Charleston.—Camp.—West Virginia Infantry, Col. C. E. Morrison, Commander, will erect latrines, bathhouses, mess halls, etc., at State mobilization camp near Charleston.

HOSPITALS, SANITARIUMS, ETC.

La., New Orleans.—Dr. J. T. Newman plans to erect sanitarium for negroes; cost \$5000.

S. C., Columbia.—State Board of Health, James A. Hayne, Secy., Palmetto Bldg., Columbia, receives bids until May 15 to erect following work at State Sanatorium at State Park: Infirmary; dining-room and kitchen; Ward No. 3; Ward No. 4; sewage-disposal plant; pump-house; heating of infirmary and dining-room; plumbing in infirmary, dining-room and wards; kitchen equipment; plans and specifications obtainable at office of Wilson & Sompayrac, Archts., Palmetto Bldg., Columbia, after May 1. (Lately noted.)

Tenn., Knoxville.—City is considering issuing \$100,000 bonds to erect addition to Knoxville General Hospital; John E. McMillan, Mayor. (Previously noted.)

Tex., Taylor.—Drs. Wedemeyer and Thomas indefinitely postponed erection of sanitarium; plans by C. Burnett Co., Waco, Tex. (Lately noted.)

Va., Abingdon.—George Ben Johnston Memorial Hospital is having tentative plans prepared for hospital building; first draft of plans ready by May 3; initial unit to cost \$50,000.

Va., Burkeville.—Piedmont Sanatorium, Dr. B. L. Tallafiero, Supt., has plans by Chas. M. Robinson, Inc., Richmond, for colored tuberculosis sanatorium; brick service building 49x70 ft.; frame pavilion 29x243 ft.; tin roof on brick building; asphalt shingle on frame; brick and frame floor construction; dumb waiter; bids opened about May 3; cost \$25,000. Address State Board of Health, Richmond. (See Machinery Wanted—Building Materials—Boilers; Engines; Pumps; Contractors' Machinery; Electrical Equipment.)

HOTELS

Fla., Key West.—City voted favorably on proposition submitted by Florida East Coast Ry. to erect hotel to cost about \$250,000; W. H. Beardsley, Prest., 25 Broadway, New York. (Noted in Nov.)

Ky., Lexington.—John V. Moore, 5713 McClelland Bldg., is preparing plans for hotel lately noted; 7630 ft.; fireproof. (See Machinery Wanted—Power Plant.)

Ky., Whitesburg.—L. W. Fields will erect hotel and store building; 90x90 ft.; brick; metal roof; wood and cement floors; water heat; cost \$20,000; is receiving prices on material. (Lately noted.)

Mo., Kansas City.—H. J. Sophian will erect 8-story apartment hotel; reported cost \$200,000.

N. C., Greensboro.—Hotel Building Co. opens bids May 10 to erect O'Herry Hotel; 75x150 ft.; reinforced concrete; tar and gravel roof; cement and tile floors; low-pressure steam heat; 2 alternating current elevators; cost \$300,000; W. L. Stoddart, Archt., 9 E. 40th St., New York. Address owners. (Lately noted.)

Tenn., Knoxville.—Mrs. James Van Deventer will convert Van Deventer Bldg. into hotel; install baths, decorate, furnish, etc.

Tex., McGregor.—J. Smith has plans for \$20,000 brick hotel.

MISCELLANEOUS

Ark., Little Rock.—Clubhouse.—Concordia Club acquired 100-acre tract on 19th Street Pike; will remodel building on site, install

shower baths and lockers, provide refreshment and dancing pavilion, etc. Address Board of Governors.

Ky., Perryville.—Amphitheater.—Perryville Fair Association, W. J. DeBaun, Prest., will erect amphitheater to replace structure recently destroyed by cyclone.

Md., Baltimore.—Boat Clubhouses.—Board of Awards, John Hubert, Acting Prest., receives separate bids until May 2 for removal of Maryland Motor Boat clubhouse to Fort McHenry Park, and erection and completion of Ariel Rowing Club and Arundel Boat Clubhouses at Fort McHenry Park; drawings and specifications at office J. J. Byrne, Inspector of Buildings; plans by Elliott & Emmart, Union Trust Bldg., Baltimore, call for two buildings 60x70 ft.; frame; concrete foundations; slate roof; steam heat. (Lately noted.)

Mo., Kansas City.—Studio.—Kansas City Scenic Co. will erect 3-story studio building; cost \$16,000.

N. C., Durham.—Community Building.—Durham Hosiery Mills, J. S. Carr, Jr., Prest., will erect community building; hospital clinic, library and milk station in connection.

Tenn., Chattanooga.—Clubhouse.—Boys' Minister of America, Harry E. Fowler, Secy.-Gen., will not erect lately-noted clubhouse for 2 or 3 years.

Tex., Cuero.—Clubhouse.—Mohan Club will remodel clubhouse; 50x90 ft.; frame; asphalt slate shingle roof; cost \$3500; Praeger & Dixon, Architects, Victoria, Tex.

Va., Fort Richardson.—Clubhouse.—Columbus Country Club, Dr. J. Rosier Biggs, Prest., 213 11th St. S. W., Washington, D. C., plans improvements to club building, to include 2 additional wings, new porch, grill-room; also additional tennis courts, croquet courts, etc.

RAILWAY STATIONS, SHEDS, ETC.

Fla., Perry.—Live Oak, Perry & Gulf R. R., V. G. Watters, Chief Engr., Live Oak, will erect depot to replace burned structure; 30x150 ft.; brick; composition roof; concrete floors; stores; electric lights; cost \$4000; bids opened about May 20. Address W. T. Hargrett, Gen. Mgr., Live Oak, Fla.

Ga., Macon.—Central of Georgia Ry., C. K. Lawrence, Chief Engr., Savannah, will erect storage warehouse; 5 stories.

Md., Easton.—Pennsylvania R. R. Co., A. C. Shand, Ch. Engr., Philadelphia, is reported to erect union passenger station and freight terminals.

Tex., El Paso.—El Paso & Southwestern R. R. Co., G. F. Hawks, Gen. Mgr., El Paso, will erect freight depot on Octavia St.; estimated cost \$250,000.

W. Va., Rosby Rock.—Baltimore & Ohio R. R. Co., H. A. Lane, Chief Engr., does not at this time contemplate erecting passenger and freight depots lately noted.

SCHOOLS

Ala., Attalla.—City voted \$11,000 bonds to improve streets and schools. Address The Mayor. (Lately noted.)

Ark., Rich Mountain.—School Board will erect building to replace lately-burned structure.

Fla., Arcadia.—De Soto County Board of Public Instruction sold \$35,000 bond issue and will soon call for bids to erect grammar school; 10 rooms; semi-fireproof; brick walls; metal lath on ceilings; composition roof; steam heat; city electric lights; A. C. Price, Archt.; J. Rice Scott, Engr. Associate, both of Arcadia. (Previously noted.)

Fla., Laurel Hill.—Laurel Hill Special Tax School Dist. has plans by S. J. Welch, Pensacola, Fla., and opens bids May 7 to erect school; 93x76 ft.; 2 stories; brick; asphalt shingle roof; pine floors; steam heat; independent electric-light plant; cost \$12,000. Address W. C. Pryor, Crestview, Fla. (Lately noted.)

Fla., Groveland.—Groveland School Dist. voted \$7000 bonds to erect school building. Address Dist. School Trustees.

Fla., High Springs.—Alachua County Board of Public Instruction, Gainesville, Fla., opens bids May 1 to erect junior high-school building; 95x105 ft.; brick and frame; natural asphalt and pebble roof; wood floors; cost \$16,000; steam or hot-water heat, about \$1500; wired for electric lighting; Bryan & Poter, Architects, Lakeland, Fla.; contractors desired to be present day of opening bids in order to sign contract same day. Address T. M. Bryan, Box 334, Lakeland. (Lately noted.)

Fla., Lakeland.—Polk County Board of Public Instruction opens bids May 8 to erect addition to school building; 56x68 ft.; frame;

cypress shingle roof; cost \$3000; Bryan & Poter, Architects, Lakeland.

Fla., Ocala.—J. V. Burke, Secy. Board of Comms. of State Institutions, Tallahassee, receives bids until May 15 to erect Industrial School for Girls; plans and specifications at office W. B. Talley and H. F. Saxelby, Architects, St. James Bldg., Room 338, Jacksonville.

Ga., Sandersville.—T. J. Lang, Chairman Building Com., is having plans prepared by J. F. Leitner, 329 Healey Bldg., Atlanta, for high-school science building; 60x80 ft.; ordinary construction; 5-ply built-up roof; heating from city power plant; cost \$21,000; address architect for information, which can be given later. (Previously noted.)

Ga., Smyrna.—Smyrna Board of Education, S. D. Rickenbaker, Acting Secy., will erect school; brick; wood floors; steam furnace; Archt. not selected; bids opened in May; construction begins May 15; cost \$15,000. (Noted in March to have voted \$15,000 bonds.)

Ky., Hebron.—Hebron School Dist. will erect 2-room school to replace present structure. Address Dist. School Trustees.

La., Cottle.—Cottle School District No. 35 voted tax to secure site, erect and equip school building; J. W. Bolton, Prest., Rapides Parish School Board, Alexandria, La. (Previously noted.)

La., Chaudrant.—School Board will erect \$8000 building.

La., Delhi.—Richland Parish School Board will erect \$2000 annex to school building; 4 rooms; brick; metal roof; double wood floors; Smith system, jacket stove; bids opened about last of July. Address E. E. Koehler, Rayville, La. (Lately noted.)

La., Dixie.—Dixie School District No. 35 voted tax to secure site, erect and equip school building; J. W. Bolton, Prest., Rapides Parish School Board, Alexandria, La. (Previously noted.)

La., Echo.—Echo School District voted \$2000 bonds to secure site, erect and equip school building; J. W. Bolton, Prest., Rapides Parish School Board, Alexandria, La. (Previously noted.)

La., Lamourie.—Lamourie School District No. 33 voted tax to acquire site, erect and equip school; J. W. Bolton, Prest., Rapides Parish School Board, Alexandria, La. (Previously noted.)

La., Rapides.—Rapides School District voted \$12,500 bonds to secure site, erect and equip school; J. W. Bolton, Prest., Rapides Parish School Board, Alexandria, La. (Lately noted.)

La., Rigolette.—Rigolette School District No. 37 (Brasher, Griffin and Rockdale Schools) voted tax to acquire site, erect and equip school; J. W. Bolton, Prest., Rapides Parish School Board, Alexandria, La. (Previously noted.)

La., Tioga.—Tioga School District voted \$12,500 bonds to secure site, erect and equip school building; J. W. Bolton, Prest., Rapides Parish School Board, Alexandria, La.

Md., Baltimore.—School Board will rebuild Public School No. 54, on 25th St. between St. Paul and Charles Sts., lately noted damaged by fire at loss \$100,000; James H. Preston, Mayor.

Miss., Delta City, P. O. Catchings.—School Board of Delta City Separate School Dist. has plans by Emmett J. Hull, Daniel Bldg., Jackson, Miss., for school; about 50x80 ft.; brick; asphalt shingle roof; wood floors; probably warm-air heat; cost \$10,000; bids opened latter part of May. Address W. C. Gill.

Mo., Kansas City.—City votes June 2 on \$2,000,000 bond issue to erect schools, improvements and additions to present structures; Hale H. Cook, Prest., Board of Education. (Lately noted.)

N. C., Hoffman.—School Board will erect school building; tapestry brick and limestone trimming; 6 rooms and auditorium; steam heat; cost \$10,000; L. L. Huneter, Archt., Charlotte, N. C.

N. C., Lexington.—Lexington School Dist. will not erect school building as lately noted.

N. C., Statesville.—City votes June 19 on \$25,000 graded school bonds; R. M. Gray, Supt. City Board of Education. (Lately noted.)

N. C., Woodland.—School Board did not let contract to erect school but will have work redigured under revised specifications; Wm. Newton Diehl, Archt., 46-47 Chamberlain Bldg., Norfolk, Va. (Lately noted.)

Okla., Alex.—Alex School Dist. will vote on \$10,000 school building bonds. Address Dist. School Trustees.

Okla., Amber.—School Board of Amber Consolidated School Dist. No. 25, F. W. Ayers, Clerk, receives bids until May 3 to erect 2-story and basement brick addition to high school; plans and specifications at office Mr. Ayers.

Okla., Bradley.—School Board is having plans prepared by Bramblet & Huseman, Oklahoma City, for \$12,000 school.

Okla., Cameron.—School Dist. No. 17 opens bids Apr. 27 to erect school; 60x62 ft.; brick; shingle roof; pine floors; gas heating and lighting; cost \$8000; construction begins June 1. Address R. E. Boozman, C. E. McMurtrey or John H. Smith. (Lately noted.)

Okla., Cordell.—School Board of North Burnes plans to erect school.

Okla., Edmond.—Board of Education, Dr. J. I. Lyon, Prest., receives bids until May 5 to erect 2-story high school; separate bids for plumbing; plans obtainable at office Leonard H. Bailey, Archt., 616 Concord Bldg., Oklahoma City, Okla., and O. W. Jeffries, Secy. School Board, Edmond.

Okla., Enid.—City defeated \$50,000 high-school bonds. (Lately noted.)

Okla., Fort Cobb.—School Board will soon call election on bonds to erect school.

Okla., Lahoma.—Lahoma School Dist. is considering election on \$15,000 school bonds. Address Dist. School Trustees.

Okla., Muskogee.—State Board of Affairs, Oklahoma City, will erect addition to main building of Oklahoma School for Blind near Muskogee; cement columns and slabs; brick walls; slate roof; extend present heating and lighting systems; cost \$50,000; Chas. W. Dawson, Archt., 412 Iowa Bldg., Muskogee; date opening bids not set. (Lately noted.)

Okla., Sapulpa.—City voted \$100,000 bonds to erect high school; R. E. Jenness, Clerk. (Previously noted.)

S. C., Anderson.—Anderson College has plans ready for distribution to contractors for enlarging dormitories; bids to be filed by May 1; Casey & Fant, Architects, Anderson; will erect 2 wings, 44x102 ft.; 2 stories; ordinary construction; slate roof; steam heat; cost \$30,000.

S. C., Greenville.—City School Board opens bids about May 15 to erect grammar school on Tay St.; 73x110 ft.; ordinary construction; tar and gravel or built-up roof; maple floors; steam heat; cost \$20,000; Martin & Ward, Architects, Greenville, may be addressed; also having plans prepared by J. E. Serrine, Greenville, for ward school; plans ready for distribution within few days. (Lately noted.)

Tenn., Chattanooga.—Hamilton County will issue \$152,000 school bonds; will erect \$30,000 school in East Chattanooga and \$10,000 building on Signal Mountain. Address County School Trustees. (Lately noted in part.)

Tenn., Knoxville.—City votes July 5 on bonds for Greater Knoxville as follows: \$150,000 for auditorium, \$250,000 for school buildings, \$50,000 for parks and playgrounds; John E. McMillan, Mayor. (Lately noted.)

Tenn., Knoxville.—City is considering issuing \$800,000 bonds for Greater Knoxville for schools, street repairs, sewers, water mains, hospitals and parks. John E. McMillan, Mayor.

Tenn., Yorkville.—Yorkville Special School Dist., F. R. Utley, Secy., will erect building; 60x80 ft.; brick; tin or some other flat roof; wood floors; cost \$10,000; archt. not selected. Address Mr. Utley. (Lately noted.)

Tex., Burkburnett.—Burkburnett School Dist. votes April 28 on \$15,000 bonds to erect high school; Clara School Dist. will vote on bonds to erect school. Address Dist. School Trustees.

Tex., Caddo.—Caddo and Mound Prairie Schools consolidated and will erect \$3500 school building. Address District School Trustees.

Tex., Calvert.—City votes April 25 on \$60,000 bonds to erect school building. Address The Mayor.

Tex., Cleburne.—Greenbrier and Stubblefield School Dist., consolidated and will erect \$4000 school building. Address District School Trustees.

Tex., Ennis.—Gymnastic Association Sokol will erect building to replace structure previously noted damaged by fire; 64x40 ft.; 16-ft. brick walls; tin roof; wood floors laid on concrete; construction by members; Jos. Bunata may be addressed.

Tex., Gainesville.—S. A. Bryan, City Secy., receives bids until May 14 to erect sub-story and 2-story reinforced concrete, brick and tile school for Fifth Ward; plans and specifications at offices City Secy., Gainesville, and Wm. Albert Tackett, Archt., 414 M. & P. Bank Bldg., Sherman, Tex. (Lately noted.)

Tex., Kirbyville.—School Board of Kirbyville Ind. School Dist. will erect school building; about 144x128 ft.; 2 stories and basement; brick; fireproof felt roof; wood floors; city electric lights; cement sidewalks; date opening bids not set; cost \$30,000; B. A. Woods, Prest. School Board. (Lately noted to vote May 11 on \$30,000 bonds.)

Tex., Reisel.—Reisel Independent School Dist. lets contract April 30 to erect \$12,000 school; 50x100 ft.; brick; probably wood floors; electric wiring; C. H. Leinbach, Archt., Dallas. (Lately noted.)

Tex., San Antonio.—Common School Dist. No. 23 voted \$15,000 school bonds. Address Dist. School Trustees.

Va., Hampton.—Wythe School Dist. votes May 19 on \$30,000 bonds to erect 4 rooms and auditorium for George Wythe School. Address Dist. School Trustees. (Previously noted.)

Va., Lynchburg.—S. S. Johnson, 604 People's Bank Bldg., Lynchburg, prepared plans and receives bids until Apr. 26 to erect public school at Cabell & Grayson Sts.; 4 rooms and basement; hollow-tile and concrete slate roof; concrete and wood floors; cost \$13,500; heating, about \$1500; R. C. Blackford, Chrmn. School Board. (Lately noted.)

Va., New Hope.—Middle River District School Board, John S. Hinegardner, Clerk, will erect 3-room addition to school building; bids opened.

W. Va., Clay.—Henry Independent School District will vote on \$8000 bonds to erect brick school building. Address District School Trustees.

W. Va., Kenova.—Ceredo Independent School District defeated \$60,000 bonds to erect high school; H. L. Stone, Secy. Board of Education, Kenova. (Lately noted.)

W. Va., Moundsville.—Moundsville Independent School Dist. votes May 15 on \$168,000 bonds to acquire sites, erect and equip 2 schools; one, graded-school building, at 3d and Cedar Ave.; fireproof; 2 stories and basement; 16 classrooms; other building, for high school and junior high school, at Tomlinson Ave. and 3d St.; fireproof; 20 classrooms, auditorium, domestic science and manual-training departments; composition roofs; reinforced concrete beam floor construction; steam heat; city lights; Edw. Bates Franzheim, Archt., Wheeling. (Lately noted.)

STORES

Ark., Danville.—N. M. Tidwell & Sons will erect 2 brick business buildings for garage and store.

Ark., Paris.—Smith Trading Co. will erect store building; 75x95 ft.; brick and concrete; metal and rubberoid roof; wood floors; cost \$7500; construction begins June 1. (Lately noted.)

Fla., St. Petersburg.—Snell & Hamlett are reported to erect arcade; hollow tile and brick.

Ga., Augusta.—B. R. Tillman, Trenton, S. C., will repair building lately noted damaged by fire at loss of \$12,000; will construct top story and roof.

Ky., Ashland.—Watson Hardware Co. will erect 5-story brick building at Greenup Ave. and Thirteenth St.; connect by bridge with 4-story building at Winchester and Thirteenth Sts.; will be occupied by company and wholesale drygoods firm; work to begin soon.

Ky., Ashland.—Simon Harris will erect business building. (See Dwellings.)

Ky., Whitesburg.—L. W. Fields will erect store and hotel building. (See Hotels.)

Mo., Kansas City.—Searritt Estate will erect 2-story fireproof building; 75x115 ft.; to be leased by D. C. L. Tire Service Co.

Mo., Kansas City.—W. P. M. Stevens, 614 Grand Ave. Temple, will erect store and apartment-house; 2 stories; 25x75 ft.; brick-veneer; flat roof; wood floors; electric lights; cost \$5000; construction by owner. (Lately noted.)

Okla., Tulsa.—R. T. Daniel is having plans prepared by J. P. Curtin, Tulsa, for 7-story addition to Daniel Bldg., occupied by Scott-Halliburton-Abbott. (Lately noted.)

Tex., Dallas.—Lewis H. Smith will erect second-story addition to building at 10406 N. Edgefield St.; cost \$3500.

Tex., El Paso.—Mrs. Samuel Schutz will expend \$3000 to repair building lately noted damaged by fire; to be occupied by Hoyt Furniture Co.

Tex., Jasper.—A. L. Mays will erect store building to be occupied by Hatchett & Lanier.

Tex., Jasper.—J. M. Orton will erect 3 brick buildings; two for stores and other for postoffice.

Tex., San Antonio.—Philomena Glassman will erect 2-story frame building at Live Oak and 13th Sts.; metal roof.

Tex., San Angelo.—Cox Rushing Dry Goods Co. is having plans prepared for remodeling and enlarging 2-story brick building; cost \$10,000.

Tex., Seymour.—Mitchell Grocery Co. will erect building; brick; 50x100 ft.

Tex., Waco.—Williams Dry Goods Co. opens bids in about 2 weeks to erect store building; 83x165 ft.; mill construction; gravel roof; wood floors; steam heat; city electric lighting; one freight and one passenger elevator; cost \$60,000; Ross & Cason, Architects, Waco, may be addressed. (Lately noted.)

Tex., Wichita Falls.—Mrs. C. B. Staton will erect business building on Scott Ave.

Tex., Wichita Falls.—William Thom will soon let contract to erect business building; 50x150 ft.

W. Va., Martinsburg.—A. J. Hammann will repair Homrich Bldg. damaged by fire; work under supervision of owner.

THEATERS

Mo., Kansas City.—Tim Spillane, 832 Reserve Bank Bldg., has plans by Madorie & Field, 832 Reserve Bank Building, Kansas City, for theater at Thirty-ninth and Summit Sts.; brick, concrete, marble and tile; composition asbestos roof; concrete floors (Master Builders' tile and marble); cost \$35,000; city lighting, \$1500; vapor vacuum heat, \$4000; bids opened April 27.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Ga., Augusta.—Miss Fannie T. Maxwell has plans by and let contract to McKenzie Building Co., Augusta, to erect apartment-house on Broad St.; 43.6x75.6 ft.; frame; tin roof; wood joist floors; electric lighting; no heating plant; cost \$7800. (Lately noted.)

Ga., Augusta.—Miss Emily C. Dugas has plans by and let contract to McKenzie Building Co., Augusta, to erect apartment-house on Broad St.; 27.6x74 ft.; frame; tin roof; wood joist floors; electric lighting; no heating plant; cost \$4500. Address contr. (Lately noted.)

Tex., El Paso.—W. M. Laughlin let contract to Jolly & Morris, El Paso, to erect apartment-house; 66 rooms; cost \$35,000; also to remodel and erect addition to residence; cost \$13,000.

Tex., El Paso.—Mrs. Mildred Paterson let contract to R. E. McKee, Box 367, El Paso, to erect apartment-house; 5 stories; 55x75 ft.; brick and timber; composition roof; wood floors; reported cost \$40,000; vapor steam heat, \$2000; Otis elevator, \$2900. Address contractor. (Lately noted.)

Va., Norfolk.—Apartment Realty Corp. let contract to C. C. Barclay, Norfolk, to erect 3-story apartment-house; brick; stone trim; 12 apartments; cost \$25,000; Philip B. Moser, Archt., 702 Law Bldg., Norfolk.

ASSOCIATION AND FRATERNAL

Ala., Huntsville.—Helion Lodge No. 1, A. F. & A. M., let contract to Baxter Bros., Huntsville, to erect lodge building; brick; tin roof; concrete floors; steam heat; cost \$15,500; E. L. Love, Archt., Huntsville; construction begun. (Lately noted.)

Fla., Lakeland.—Lakeland Lodge No. 1291, B. P. O. E., let contract to Logan Bros., Tampa, to erect lodge building; 3 stories; 80x100 ft.; brick and stone; composition roof; wood floors; gas heat; electric elevators; cost \$44,000.

Tex., Jasper.—J. E. Stone let contract to erect store and Masonic Temple building. (See Stores.)

BANK AND OFFICE

Fla., Moore Haven.—First Bank of Moore Haven let contract to George & Grover, Moore Haven, to erect bank building, 50x50 ft., and storeroom, 50x50 ft.; frame and stucco; concrete floor; metal ceiling; tar and gravel roof; cost \$5500; plans by contractors; construction begun.

Okla., Bliss.—Miller Bros., 101 Ranch, let contract to O. F. Reck, Ponca City, Okla., to erect bank, store and hotel building; 90x100 ft.; stucco; tar and gravel roof; concrete floors and sidewalks; cost \$25,000; hot-water heat \$1500; Delco lighting system \$225; J. C. Bailey, Archt., 601 Colcord Bldg., Oklahoma City; construction begins May 1. Address owners. (Lately noted.)

WAREHOUSES

Ark., Blytheville.—Bertig Store Co. will erect warehouses to replace structures lately burned.

Ga., Buena Vista.—J. Gordon Lowe has plans by T. W. Smith & Co., Murrah Bldg., Columbus, Ga., for warehouse; 1 story; 75x100 ft.; brick; standard mill construction; asphalt composition roof; cement floor; fire doors; metal windows; cost \$7000; owner and architect purchasing materials and equipment.

Ky., Louisville.—Louisville Varnish Co. will erect brick fireproof warehouse; cost \$37,000.

Md., Hagerstown.—J. W. Myers & Co. will erect warehouse; concrete and steel.

Mo., Kansas City.—J. M. Tschudy Realty Co. will erect 1-story warehouse; cost \$10,000.

S. C., Columbia.—Kirkland Distributing Co., B. B. Kirkland, Prest., will erect 2-story brick warehouse; 90x208 ft.

Tex., Austin.—John L. Butler, Agent for Mary Butler, will erect 1-story and basement warehouse; concrete, frame and brick filler; cost \$20,000.

Tex., Vernon.—Vernon Cotton Oil Co. will rebuild burned storage-house for cottonseed; 80x300 ft.; character of construction not decided; galvanized-iron roof; concrete floors; archt. not employed; construction begins within few weeks; address Daniel Bond, Mgr., care Vernon Cotton Oil Co. (Lately noted burned.)

Okla., Tulsa.—Dr. Walter E. Wright has plans by and let contract to Nicol, Langford & Johnson, Realty Bldg., Louisville, Ky., to erect previously-noted office building; 8 stories; 41x100 ft.; reinforced concrete; Barrett specification roof; wood (edge grain) on concrete floors; steam heat; elevators not determined; cost \$160,000. (See Machinery Wanted—Electric Fixtures; Vacuum Cleaners.)

Tex., Paris.—First State Bank let contract to Owings-Shofner & Co., Paris, to erect bank and office building; 30x100 ft.; 2 stories and basement; brick, steel, concrete and terra cotta; Armocone roof; concrete floors; city lighting; Berger Mfg. Co.'s Radiant sidewalk lights; cost \$35,000; steam heat, \$3500; Roy E. Lane & Co., Architects, Paris; construction begins in 10 days. (Other contracts lately noted.)

Va., Pulaski.—Pulaski National Bank let contract to E. M. Herrington & Co., 407 Terry Bldg., Roanoke, to erect bank, store and office building; 75x98 ft.; 3 stories; concrete foundation; brick walls; wood and concrete floors; tar and gravel roof (contract let); heating and elevator not in contract; Frye & Chesterman, Architects, Roanoke. (Lately noted.)

CHURCHES

Ala., Athens.—Methodist Church let contract to Johnson-Chambers Co., Athens, to erect \$10,000 structure.

Ga., Albany.—First Presbyterian Church let contract to A. C. Knight, Albany, to erect building; pressed brick and stone; tile roof; cost \$30,845; steam heat, \$1500; electric lights, \$300; will also erect manse; total cost \$45,000. (Previously noted.)

Ky., Lexington.—First Methodist Church, Virgil P. Smith, Chrmn. Building Com., let contract to Southern Building Supply Co., Lexington, Ky., erect building; brick walls; wood floors; built-up composition roof; steam heat (contract not let); electric lights; cost \$25,000; E. Stamler, Archt., Lexington, Ky.

Ky., Lexington.—Broadway Christian Church let contract to Frank Corbin, Lexington, to erect building; 104x192 ft.; probably 3 stories and basement; cost \$100,000; Richards, McCarty & Bulford, Architects, Columbus, Ohio. (Previously noted.)

N. C., Gastonia.—Associate Reformed Presbyterian Church of Gastonia let contract to C. W. Spencer, Gastonia, to erect building; 42x107 ft.; ordinary brick and hollow tile; slate roof; wood floors; cost \$17,600; furnace heat, \$800; Wilson & Sompayrac, Architects, Columbia, S. C. (Lately noted.)

S. C., Greer.—W. L. James let contract to Pillard & Dobson, Greer, to erect Baptist parsonage; 2 stories; 8 rooms; frame; hard cypress-shingle roof; hardwood floors; cost \$3000; electric lights, \$100; T. J. Tinsley, Archt., Spartanburg, S. C. Address owner. (Lately noted.)

CITY AND COUNTY

Ark., Fayetteville.—Home.—County let contract at \$9836.60 to Williams Bros., Fayetteville, to erect home; completion by Sept.

Fla., Gainesville.—Library.—Carnegie Library Association let contract to C. T. Dawkins, Jacksonville, to erect library; brick and stone; 1 story and basement; 26x60 ft.; tile roof; cement floors; low-pressure steam heat; city lighting; cost \$15,000; Geo. McKay, Archt., Ocala. (Lately noted.)

La., Shreveport.—Water-works and Fire-alarm Supply.—City let contract at \$11,000 to W. H. Werner, Shreveport, to erect water-works supply station and fire-alarm department; 40x70 ft.; 2½ stories; fireproof, reinforced concrete and brick; concrete roof with composition covering; reinforced concrete floors; natural-gas heat; electric lights; J. C. Stokes, Shreveport, low bidder for electric work at \$343; A. J. Armstrong, Archt., Shreveport. (Lately noted.)

Okla., Henryetta.—City Hall.—City let contract to Weathers & Trapp, Oklahoma City, to erect city hall; 3 stories and basement; cost \$45,000.

Tenn., Jacksboro.—Jail.—Campbell County Comms., Winston Baird, Chrmn. Com., let contract to erect jail; metal or slate roof; concrete walls and floors; cost \$12,500. (Previously noted.)

Tex., Brownwood.—City Hall and Fire Station.—City let contract to Hood & Staggs, Brownwood, to erect city hall and fire station; 80x80 ft.; semi-fireproof; metal roof; concrete and hollow tile; tile and shingle sidewalk and vault lights; cost \$25,000; Henry T. Phelps, Archt., San Antonio. (Lately noted.)

Tex., Wichita Falls.—Library.—Library Association, Mrs. C. W. Snider, Prest., let following contracts to erect public library presented to city by J. A. Kemp: Taylor Bros., general contract at \$20,510; Robert Elliott, plumbing and heating; Southern Electric Co., wiring; all contractors of Wichita Falls; plans by Stanley Field of Madorie & Field, Wichita Falls, call for 1 story and basement; brick; terra-cotta finish; total cost \$25,000. (Previously noted.)

COURTHOUSES

Mo., Bowling Green.—Pike County let contract to McCarthy Construction Co., 509 Navarre Bldg., St. Louis, to erect courthouse; 3 stories; brick veneer; cost \$33,864; H. H. Hohenschild, Archt., Suite 310-11-12 Navarre Bldg., St. Louis. (Lately noted.)

Va., Chatham.—Pittsylvania County let contract to Haynes Bros., Chatham, to erect addition to courthouse; brick; tin roof; wood and concrete floors; cost \$8000; completion by Sept. 1; also let contract to Vass-Watson Corporation, Danville, Va., for plumbing and heating for \$1689; Stanhope S. Johnson, Archt., Danville. (Lately noted.)

DWELLINGS

Ala., Birmingham.—C. S. Bissell let contract to W. Paul, Birmingham, to erect \$15,000 residence; materials include reinforced concrete, floors, tile, vacuum cleaner, fireproofing, etc.; Wm. Leslie Welton, Archt., American Trust Bldg., Birmingham.

Ala., Troy.—Seth Copeland let contract to Peerless Plumbing & Lumber Co., Troy, to erect residence; frame; stucco exterior; composition roof; 7 rooms and sleeping porch.

Ark., Clarksville.—Dr. C. E. Robinson let contract to erect brick residence.

D. C., Washington.—H. W. Robertson, 2408 New York Ave., let contract to William Todd, 1406 G St. N. W., Washington, to erect dwelling on Tracy Pl.; 40x45 ft.; brick; slate roof; wood floors; vapor heat; cost \$20,000; Jas. E. Cooper, Archt., 900 B St. S. W., Washington. (Lately noted.)

D. C., Washington.—H. B. Myers has plans by Cunningham, Bullock & Humphreys, 1211-A Connecticut Ave., Washington, and let contract to A. C. Warthen to erect dwelling, 3306 Rittenhouse St.; cost \$8400.

D. C., Washington.—Wm. L. Stephenson, 1139 19th St. N. W., let contract to M. H. Harriman to erect frame dwelling at 6924 15th St. N. W.; cost \$5600; Thos. F. Holden, Archt.

Fla., Miami Beach.—Miami Ocean View Co. let contract to Halsemer Bros., Miami, to erect 17 1 and 2-story residences; wood, concrete and hollow-tile; tile and shingle roof; cost \$4000 to \$10,000 each; August Geiger, Archt., Miami; construction begun. (Lately noted.)

Fla., St. Augustine.—Mr. Stimson let contract to William Fishwick to erect 2-story

residence; plans erection of rooming-house later.

Md., Baltimore.—Wm. Walper, 124 W. Baltimore St., let contract to C. W. Littleton & Son, 4313 Liberty Heights Ave., Baltimore, to erect residence; 50x70 ft.; frame; slate roof; wood and tile floors; cost \$10,000; hot-water heat, \$1000; electric lights, \$300; John R. Forsythe, Archt., 232 St. Paul St., Baltimore. Address contractors. (Lately noted.)

Mo., Kansas City.—Rolla Watson, Wichita, Kan., let contract to Gus Agee, Kansas City, to erect brick and stucco residence; cost \$3000.

Mo., Kansas City.—K. S. Duncan let contract to Long Construction Co., Rialto Bldg., Kansas City, to erect residence; 30x60 ft.; brick on hollow tile; red cedar shingle roof (Peerless Premium brand); frame and steel girders; vacuum vapor heat; cost \$25,000; Keene & Simpson, Architects, Reliance Bldg., Kansas City. (Lately noted.)

Mo., Kansas City.—Kate Finnigan, care of George B. Peck Dry Goods Co., let contract to Edelman & Fleming, Midland Bldg., Kansas City, to erect dwelling; 35x115 ft.; brick, concrete and frame; Barrett composition roof; wood floors; electric lights; cost \$42,000; steam heat \$4000; construction begun; Madorie & Field, Architects, 832 Reserve Bank Bldg., Kansas City.

Okla., Tulsa.—M. Lebow let contract to J. E. Roger, Tulsa, to erect residence; frame; 28x36 ft.; shingle roof; hardwood floors; gas furnace; cost \$7000.

Tex., Alice.—J. J. Denison let contract to erect residence; construction begun.

Tex., Alice.—C. L. Tanner let contract to erect residence.

Tex., Beaumont.—L. H. Parish let contract to Interstate Realty Co. to erect 2-story stucco residence; C. A. Logan, Archt., Beaumont.

Tex., Beaumont.—Mrs. M. Little let contract to J. E. Heartfield, Beaumont, to erect 2-story frame residence; cost \$10,000.

Tex., El Paso.—W. M. Laughlin let contract to remodel and erect addition to dwelling. (See Apartment-houses.)

Tex., Quanah.—A. B. Jones let contract to John R. Rodgers, Quanah, to erect residence; 2 stories; brick veneer; shingle roof; edge grain floors; electric lights; cost \$5500; hot-air heat, \$650; concrete sidewalks, \$250; P. M. Clevering, Archt., Kansas City, Kan. (Lately noted.)

Va., Lynchburg.—Jas. R. Gilliam, Jr., let contract to Hamilton Bros., Lynchburg, to erect residence; colonial style; brick; slate roof; cost \$15,000; heating, \$2000; completion by Sept. 1. Address Stanhope S. Johnson, Archt., Lynchburg.

Va., Newport News.—E. I. Cornbrooks let contract to R. V. Richardson, Hampton, Va., to erect residence; cost \$10,000.

GOVERNMENT AND STATE

Ga., Chickamauga.—Cantonment.—Government let contract to T. S. Mouley & Co., Chattanooga, to erect 81 frame buildings for reserve officers' cantonment in Chickamauga Park to include 15 company barracks, 26 ft. long; 15 kitchens, 20x28 ft.; 15 mess halls, 84 ft. long; 16 latrines, 35 ft. long; administration building, 84 ft. long; hospital building, 126 ft. long; 2 storehouses, 20x60 ft.; estimated cost \$50,000 to \$60,000; contractors engaged G. W. Knight, Engr., to superintend construction; completion by May 8; Major Edward S. Walton, Fort Oglethorpe (Ga.) Commandant.

Ga., Fort McPherson (H. R. Station, Atlanta).—Cantonment.—Government let contract to H. J. Carr & Co., Atlanta, to erect buildings for 2500 men and officers; also let contract for lighting and fixtures to Solomon-Norcross; P. Thornton Mayre, Archt., Candler Bldg., Atlanta; completion probably by May 8; Col. Charles R. Noyes, Commander, 17th Infantry.

Tex., Cameron.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., let contract at \$35,458 to W. D. Lovell, Minneapolis, Minn., to erect postoffice. (Previously noted.)

W. Va., Guyandotte.—Dwellings.—See W. Va., Point Pleasant.

W. Va., Millwood.—Dwellings.—See W. Va., Point Pleasant.

W. Va., Point Pleasant.—Dwellings.—Major T. H. Jackson, Corps of Engrs., U. S. A., Wheeling, let contract to Earl N. Everson, Brilliant, Ohio, at \$875, to erect double lockkeeper's house at dam No. 22; at \$20,350 to erect 2 two-story 14-room double houses at Dam No. 23, and at \$19,500 to erect 2 two-story 14-room houses at Dam No. 25; rejected bids for houses at Dam No. 27; 2 houses

above Point Pleasant; 2 above Guyandotte; 2 above Millwood, and 1 at Ravenswood. (Lately noted.)

W. Va., Ravenswood.—Dwellings.—See W. Va., Point Pleasant.

HOSPITALS, SANITARIUMS, ETC.

Ky., Louisville.—Norton Memorial Infirmary let contract to National Concrete Construction Co., Louisville, to erect nurse's home; 30x145 ft.; 3 stories and basement; basement and first floor, concrete; other floors, wood; brick walls; tin, slate and composition roof; Leomis & Hartman, Architects, Louisville. (Lately noted.)

Miss., Gulfport.—Kings Daughters and Sons let contract to Carroll Blake Construction Co., Birmingham, to erect hospital; 56x135 ft.; 3 stories; brick and timber; tile roof; wood floors; cost \$30,000; N. W. Overstreet, Archt., Jackson, Miss. Address contractor. (Lately noted.)

Tex., Lubbock.—Dr. A. R. Ponton, Post, Tex., let contract to Bramlitt & Webster, Lubbock, to erect hospital; 100x100 ft.; brick and concrete; composition roof; concrete floors; cost \$50,000; direct steam heat, \$5000; automatic elevator, \$2500; Rose & Peterson, Architects, Kansas City, Mo. (Noted in March.)

Tex., Orange.—Dr. J. Percy Hewson let contract to J. M. Pearson to erect sanitarium; 18 rooms; frame; 50x300 ft.; cost \$6000 to \$7000; to be first unit of group of buildings to be erected later.

Tex., Waco.—Central Texas Baptist Sanitarium let contract to J. S. Harrison & Sons, Waco, to erect first unit of sanitarium; plans by George C. Burnett Co., Waco, call for 5 stories; 104x164 ft.; 100 rooms; reinforced concrete; total expenditure \$250,000. (Previously noted.)

HOTELS

N. C., East Bend.—R. Baldwin Horne let contract to F. P. Kirk, East Bend, to erect hotel; 16 rooms; Delco electric-lighting system.

Okla., Bliss.—Miller Bros. let contract to erect hotel, store and bank building. (See Bank and Office.)

Tex., Dublin.—Bob Evans let contract to Oates & Sullivan, Dublin, to erect hotel; 46x87 ft.; brick; tin and gravel roof; wood floors; electric lights; cost \$12,000; David S. Castle, Archt., Abilene, Tex. Address C. S. Oates, Dublin. (Lately noted.)

MISCELLANEOUS

Fla., Miami.—Indoor Tennis Court.—Carl G. Fisher let contract to Crump Construction Co., Miami, at \$22,000, to erect indoor tennis court; 62x112 ft.; concrete; wire skylight roof; electric lights; A. E. Lewis, Archt., Miami. (Lately noted.)

Fla., Tampa.—Clubhouse.—L'Unione Italiana Club let contract to Bates-Hudnall-Jetton Co., Tampa, to erect clubhouse; 70x105 ft.; 3 stories; reinforced concrete; composition roof; tile finish floors; gas steam-heating system; city lighting; cost \$65,000; also let contract to Baker & Holmes Co., Tampa, for 37,000 Shawnee No. 288 fuel brick manufactured by Claycraft Mining & Brick Co., Columbus, Ohio, and for G-F floor tile, lerring-bone bath and self-centering, manufactured by General Fireproofing Co., Youngstown, Ohio; Bonfoey & Elliott, Architects, Tampa. (Lately noted.)

RAILWAY STATIONS, SHEDS, ETC.

Tex., Port Arthur.—Jefferson County Traction Co. let contract to Seerist Construction Co. to erect interurban station; brick and tile; construction under supervision engineering department of Stone & Webster Engineering Corporation, Boston, Mass. (Lately noted.)

Va., Richmond.—Virginia Ry. & Power Co. let contract to Jno. T. Wilson Co., Richmond, to erect storage warehouse; 27x40 ft.; concrete; cost \$500; Carneal & Johnston, Architects, Richmond.

Va., Richmond.—Richmond Terminal Ry. Co., W. H. White, Prest., let contract to Virginia Bridge & Iron Co., Roanoke, for 50 tons of steel to erect union station, for which John H. Parker Co., 315 4th Ave., New York, has general contract at \$709,800; John Russell Pope, Archt., 527 5th Ave., New York; Harry Frazier, Consult. Engr., Richmond. (Previously noted.)

SCHOOLS

Fla., Holly Hill.—Board of Public Instruction of Volusia County, De Land, Fla., let contract to Fuquay & Gheen, Daytona Beach,

Fla., to erect school; 58x112 ft.; brick veneer; composition roof; wood floors; low-pressure steam heat; cost \$10,000; J. T. Cairns, Archt., De Land, Fla. Address contractors. (Lately noted.)

Ky., Carrollton.—Board of Education let following contracts for erection of high school: Lumber and millwork, Adkinson Bros. Co.; plumbing, C. B. Salyers & Sons; carpenter work, J. H. Kipping; brick work, Ben Meyer; plaster, William Raney; all of Carrollton; supervision of John Tharp, also of Carrollton; plans by Manley & Young, Lexington, Ky., call for brick building; Johns-Manville asbestos roofing; cost \$30,000. (Noted in March.)

Ky., Richmond.—Board of regents of Eastern Kentucky State Normal School let contract to Todd & Son Building Co., Richmond, to erect library and training school; brick and stone; tile and composition roof; wood floors; C. C. and E. A. Weber, Architects, Cincinnati, Ohio. (Lately noted.)

Ky., Union City.—Trustees let contract to Sherrill-Russell Lumber Co., Paducah, for mill work for \$30,000 high school.

Okla., Prague.—School Board let contract to S. P. Hughes, 1218 Linwood St., Oklahoma City, to erect school building; 62x62 ft.; brick and stone; tar and gravel roof; cost \$12,000; also let contract to Cook & McDonnell Co., Oklahoma City, at \$1800, for steam heat; Hawk & Parr, Architects, 501 Security Bldg., Oklahoma City. (Noted in March.)

Okla., Tulsa.—School Board let contract to Van Horn & Brickner Co., Tulsa, at \$13,913.67 to construct stone retaining wall and stone steps on north and east side of \$300,000 high-school grounds. (Van Horn & Brickner Co. previously noted a general contractor for school.)

S. C., Mills, P. O. at Greenville.—Mills Dist. School Board let contract to R. G. Shack, Easley, S. C., to erect building; heating contract not let; H. Olin Jones, Archt., Greenville. (Lately noted.)

Tex., Alba.—School Board, J. H. English, Secy., let contract to Ray & Foster, Alba, to erect school building; 3 stories; brick, tile and wood; tar, felt and gravel roof; concrete and wood floors; cost \$15,000; Smith heating plant, about \$600; lighting, \$125; C. H. Leinbach, Archt., Dallas. Address Mr. English. (Lately noted.)

Tex., Greenville.—Burleson College Trustees let contract to erect \$40,000 dormitory; 50 rooms; steam heat; hot and cold water; gymnasium; completion by Sept. 1.

Tex., Fairlie.—Trustees let contract to W. J. Galley, Mineral Wells, to erect school; 2 stories; brick; cost \$5000; C. H. Leinbach, Archt., Dallas. (Lately noted.)

Tex., Lone Oak.—School Board let contract to Murphy & Croft, Mineral Wells, to erect school; cost \$13,500; C. H. Leinbach, Archt., Dallas. (Lately noted.)

Tex., Tyler.—Board of Education let contract to Joe M. Pressler, Jacksonville, Tex., to remodel and erect additional rooms to 2 grade schools and erect 2 10-room brick school buildings; also let contract to Mr. Pressler for mechanical equipment; Sanguinet & Staats, Architects, Fort Worth. (Noted in March.)

Va., Chatham.—Chatham Episcopal Institute let contract to H. A. Osborne & Son, Danville, Va., to erect proposed addition to Dabney Hall; 50x60 ft.; 4 stores; brick; slate roof; joist floors maple finish; cost \$20,000; Frye & Chesterman, Architects, Roanoke, Va.

STORES

Ala., Montgomery.—A. Gersen & Son let contract to Huggar Bros., Montgomery, to repair business building; cost \$4000; construction begins in May. (Lately noted.)

D. C., Washington.—Byron Wallerstein let contract to A. B. Mullett & Co., 721-23 Union Trust Bldg., Washington, to remodel business building, 216 10th St. N. W.; cost \$3000.

Fla., West Palm Beach.—Henry Lewis, West Palm Beach, has contract to erect business building.

Ga., Atlanta.—R. O. Campbell Coal Co. let contract to R. M. Walker, 712-13 Grant Bldg., Atlanta, to repair building damaged by fire; about 65x100 ft.; mill construction; Carey roof; cement and wood floors; all material purchased; construction begun; cost \$6000.

Ga., Waycross.—Park Morrard has contract to enlarge 2-story business building.

Md., Baltimore.—Julius Mintz, Agent, let contract to Herbert & Prodehl, 431 Munsey Bldg., Baltimore, to erect 1-story brick store at Howard and Monument Sts.; plate-glass front; 30x32 ft.; Blanke & Zink, Architects, 648 Equitable Bldg., Baltimore. (Lately noted.)

Okla., Bliss.—Miller Bros. let contract to erect store, bank and hotel building. (See Bank and Office.)

S. C., Greenville.—J. F. Hodges let contract to Jamison & Morris, Greenville, to remodel store for Meyers-Arnold Co.; provide pressed-brick front, install elevator, show windows, floors and fixtures; cost \$10,000. (Lately noted.)

Tex., Dallas.—Investors' Development Co., through Davidson-Davis Co., let contract to A. Guidera, Dallas, to erect 3-story building on Pacific Ave.; 56x74 ft.; cost \$38,000.

Tex., Jasper.—J. E. Stone let contract to L. B. Powell, Jasper, to erect lately-noted building for store and Masonic Temple; 34x81 ft.; 2 stories; brick; Johns-Manville asbestos roof; tile and concrete floors; heaters; electric lights; cost \$6000 to \$8000; no general contract; will let contract within 10 days and begin construction May 15. Address owner. (See Machinery Wanted—Lighting Equipment; Building Materials.)

Tex., Victoria.—L. F. Haller let contract to M. Gray to erect 1-story brick business and office building; 35x45 ft. (Lately noted.)

Va., Pulaski.—Pulaski National Bank let contract to erect store, bank and office building. (See Bank and Office.)

W. Va., Huntington.—Robinson & Klingenspeel have contract to erect store building at 16th St. and 8th Ave.

THEATERS

D. C., Washington.—Tom Moore, Prop., Moore's Strand Theater, 403 9th St. N. W., is reported to have let contract to erect Moore's New Strand at 9th and G Sts. N. W.; 2 stories; main auditorium, mezzanine floor, with balcony; seating capacity 3389, with standing room 3000; lobby 75x100 ft.; rotunda with glass dome; marble stairway; substage for orchestra; Appleton P. Clark, Jr., Archt., 706-09 Equitable Bldg., Washington. (Previously noted.)

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Air Compressor.—Livingston Oil Corp., Iowa Bldg., Tulsa, Okla.—Prices on large air compressor.

Air Compressor.—Maryland Equipment & Supply Co., Equitable Bldg., Baltimore, Md.—Ingersoll-Rand or Sullivan 2000-ft. Corliss compressor; steam driven; modern design.

Annealing Oven.—Dow Wire & Iron Works, Louisville, Ky.—Data and price on small annealing oven for malleable castings in foundry.

Boilers.—See Building Materials.—State Board of Health.

Boiler.—M. K. Walker Tobacco Co., Warsaw, N. C.—Second-hand 80 H. P. boiler 100 lbs. pressure.

Boiler (Return Tubular).—Roden Coal Co., Marvel, Ala.—Prices on 72x30 return-tubular boiler or larger; complete with fittings, including stack; first-class condition, and stand insurance inspection for 135 lbs. pressure. Advise how soon can ship after inspection.

Boilers (Water Tube).—P. J. C., care of Manufacturers Record, Baltimore, Md.—2000 H. P. water-tube boilers, in units not less than 200 H. P.; insurable 150 lbs.

Brick.—A. Snyder, 141 N. Queen St., Martinsburg, W. Va.—Prices on 3000 fancy face brick.

Boilers (Fire Box).—Cambro-Clinton Mining Corp., 209 N. 21st St., Birmingham, Ala. Prices on two 100 H. P. fire box boilers, with stacks.

Bridge Construction.—See Road Construction.—Lake County Commrs.

Bridge Construction.—See Road and Bridge Construction.—Putnam County Commissioners, R. J. Hancock, Clerk, Palatka, Fla.

Bridge Materials.—See Road Improvements.—Rapides Parish Supvs.

Building Materials.—J. E. Stone, Jasper, Tex.—Prices on brick, lime and cement for \$6000 to \$8000 business and lodge building.

Building Materials.—State Board of Health, Richmond, Va.—Prices on boilers, engines, pumps, contractors' machinery, building materials and electrical equipment for \$25,000 sanitarium at Burkeville, Va.

Building Materials.—J. L. Cunningham, P. O. Box 265, Bristow, Okla.—Information on building materials.

Building Materials.—Builders Exchange of Augusta, 406 Harrison Bldg., Augusta,

Tenn., Memphis.—Sam Zerilla let contract to F. A. Cory, Memphis, to erect 1-story brick moving-picture theater; cost \$12,650.

W. Va., Clarksburg.—Frank R. Moore let contracts as follows to erect theater: Grading and excavating, J. Frank White; concrete work, Biddle Concrete Co.; brick work, Shinn Bros.; marble and tile work, Cottrill & Post; decorating, A. Haubrich Decorating Co.; all of Clarksburg; steel construction, J. E. Moss Iron Works, Wheeling; S. W. Ford, Archt., Clarksburg.

WAREHOUSES

Ga., Atlanta.—Miss McClintock and Mrs. Adamson let contract to R. M. Walker, 713 Grant Bldg., Atlanta, to erect warehouse; 46x200 ft.; brick and timber; composition roof; cement and wood floors; cost \$12,000; all materials purchased; to be occupied by Southern Express Co. (Lately noted.)

Ga., Columbus.—Jas. A. Lewis let contract to Gifford & Whitaker, Columbus, to erect 2-story and basement warehouse to be occupied by Brannon-Carson Wholesale Drug Co.; mill construction; 44x140 ft.; gravel roof; brick; hot-air heat; electric lights; electric elevators; automatic sprinkler system; cost \$15,000; T. F. Lockwood, Archt., Columbus. (Lately noted.)

Ky., Louisville.—Louisville Public Warehouse Co., let contract to O. A. Koerner & Co., Louisville, to erect warehouse; 46x204 ft.; reinforced concrete; reinforced concrete roof and floors; cost \$40,000; electric elevator, about \$3500; construction begins about May 1; D. X. Murphy & Bro., Architects, Louisville Trust Bldg.

Tex., El Paso.—West Texas Fuel Co. let contract to Jolly & Morris, El Paso, to erect warehouse addition; 140 ft. square; cost \$20,000.

Va., Richmond.—Virginia Ry. & Power Co. let contract to erect storage warehouse. (See Railway Stations.)

Ga.—Literature, samples, prices, etc., on all products connected with building construction.

Building Materials.—W. B. Vandeventer, Godley, Tex.—Prices on building materials.

Building Materials.—M. C. Parker, Ennis, Tex.—Catalogues and prices on building materials.

Bulkhead Construction.—R. E. Steed, City Clerk, Norfolk, Va.—Bids until April 30 to build bulkheads on city property at Bush Bluff, Tanners Creek Dist., Norfolk County; plans and specifications on file with W. W. Gwathmey, Engr. for Dock Commrs., 627 Seaboard Bank Bldg., Norfolk.

Burners (Kerosene).—Roy Morse, 412 E. Michigan Ave., Tampa, Fla.—Prices on wickless kerosene burners; for indoor use.

Canning Machinery.—Board of Trade, I. C. Griffin, Secy., Shelby, N. C.—Prices on equipment for canning factory.

Canning Machinery.—Wilhelm Wehe, State Dept. Agriculture, Austin, Tex.—Data and prices on plants for canning vegetables and fruit.

Capstans.—Navy Dept., Bureau Yards and Docks, Washington, D. C.—Bids until May 7 to furnish and install 10 electrically-driven capstans and 20 hand-power capstans at Navy Yards, Norfolk and Philadelphia; drawings and specifications (2351) on application to Bureau or to commandants of Navy Yards named.

Cars.—Grundy Banner Coal Co., Grundy, Va.—Prices on mining cars, 10-in. wheel, for 48-in. track.

Cars.—Pennsylvania Equipment Co., Philadelphia, Pa.—Three 30-ton capacity hopper bottom coal cars for Michigan delivery; second-hand.

Cars.—McCurcain Coke Co., O. W. M. Miller, Secy.-Treas., First National Bank Bldg., Fort Smith, Ark.—20 or 25 medium or large capacity gondolas; 10 or 15 box cars.

Coke Oven Supplies.—McCurcain Coke Co., O. W. M. Miller, Secy.-Treas., First National Bank Bldg., Fort Smith, Ark.—100 coke oven valves and 1-in. hose; 10 additional trunnel head rings with 10, 12 or 16-in. openings.

Concrete Reinforcing Bars.—Washington County Highway Commission, 4th Floor Weinberg Bldg., Greenville, Miss.—Bids until May 4 to furnish 15 tons concrete reinforcing bars; specifications on file offices of Highway Commission and of Clerk Board of Supvs., Washington County.

Contractors' Machinery.—See Building Materials.—State Board of Health.

Conveyor.—McCurain Coke Co., O. W. M. Miller, Secy.-Treas., First National Bank Bldg., Fort Smith, Ark.—Coal conveyor.

Crane (Locomotive).—C. T. Sowden, 253 St. Anthony St., Mobile, Ala.—15 to 20-ton standard-gauge locomotive crane, with 40-ft. steel boom.

Crusher.—Cambro-Clinton Mining Corp., 209 N. 21st St., Birmingham, Ala.—Prices on No. 5 or No. 6 Gates or No. 5 or No. 6 McCully crusher.

Crusher (Coal).—McCurain Coke Co., O. W. M. Miller, Secy.-Treas., First National Bank Bldg., Fort Smith, Ark.—Coal crusher for friable bituminous high carbon coal lumps up to 10 in.

Cutter (Electric).—Hombre Coal Co., M. G. Yingling, Mgr., 312 Fayette Bank Bldg., Lexington, Ky.—Prices on electric cutter; for installation Hombre, Ky.

Drainage System.—Little River Drainage Dist., Wm. A. O'Brien, Chief Engr., Cape Girardeau, Mo.—Bids until May 15 to construct scraper ditches; 4-ft. bottom; average depth 6 ft.; 69,000 cu. yds. excavation; 80 acres clearing; specifications, profiles, etc., on file with Chief Engr. or Isham Randolph, Consult. Engr., 1827 Continental Bank Bldg., Chicago, and may be obtained from Chief Engr. for \$3.

Drilling Equipment.—Ozark Lead & Zinc Co., A. T. Lewis, Prest.-Mgr., Miami, Okla. Prices on drill rigs.

Electric Equipment, Steel Doors, Metals, etc.—Panama Canal, Earl I. Brown, General Purchasing Officer, Washington, D. C.—Bids until May 12 to furnish steel doors, kalamein doors, galvanized steel, spring bronze, sheet brass, chain, poultry netting, nuts, screws, cable clips, electric cable, magnet wire, compensators, lighting fixtures, electric meters, electric motors, smoothing planer, saw bench machine, brass couplings, cocks, valves, reseating outfit, wash tray plugs, scrub and paint brushes, grindstones, hose, cuspidors, agate cups and plates, window glass, adding machine paper, rock salt and switch ties; blanks, etc., relating to circular (No. 1139) obtainable from office or offices of assistant purchasing agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, Fort Mason and San Francisco; also from United States engineer offices throughout United States.

Electric Fixtures.—Dr. Walter E. Wright, Tulsa, Okla.—Prices on electric fixtures for 8-story \$160,000 office building.

Electric Transmission System.—Water Commrs., W. H. Woodson, Chrmn., Salisbury, N. C.—Bids until April 30 to construct 6 mi. 13,000-volt transmission line; for further information address J. W. Neave, Supt.

Electrical.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 27 blowers (open type motor, 600 and 1000 cu. ft.), schedule 989; 30 portable electric drills, and 100 portable electric heaters, schedule 958; also 63 electric heaters, schedule 954, delivery Brooklyn; 9 1/4-H. P. portable ventilating sets, schedule 962, delivery Charleston, S. C.; 24 1/4-H. P. portable ventilating sets, schedule 962, delivery Norfolk.

Electrical Equipment.—See Building Materials.—State Board of Health.

Electrical Equipment.—Chilhowie Light & Power Co., Jas. D. Tate, Prest., Chilhowie, Va.—Prices on 220-volt 3-phase 60-cycle A. C. motors, poles, crossarms and hardware, wire, transformers, etc.

Elevator.—Blue Front Garage, L. A. Clark, Mgr., Lexington, Va.—Prices on elevator.

Engine.—M. K. Moore Lumber Co., Warsaw, N. C.—15 to 20 H. P. engine.

Engines (Gas).—Livingston Oil Corp., Iowa Bldg., Tulsa, Okla.—Prices on 40 to 80 H. P. gas engines.

Engines (Fuel Oil).—See Ice Machinery.—J. S. Hughes.

Engines.—See Building Materials.—State Board of Health.

Engines (Oil; Natural Gas).—White Cliffs Chalk & Marl Co., Hope, Ark.—2 oil engines, 70 and 225 H. P.; 2 natural gas engines, 200 and 250 H. P.

Evaporators (Syrup).—C. W. Ashcraft & Son, Florence, Ala.—Addresses of manufacturers of syrup evaporators.

Felting Machines (Cotton).—Pittsburg Cotton Oil Co., Ben B. Scott, Mgr. Mattress Dept., Pittsburg, Tex.—Addresses of cotton felting or bat machines for mattress manufacturing.

Filing Machines (Gin Saw).—Jos. W. Ivy, Mgr. American Cast-Iron Pipe Co., 715 Scarritt Bldg., Kansas City, Mo.—Prices and catalogues or cuts showing assembled and

detail drawings of gin saw filing or gumming machine.

Fire Extinguishers, etc.—A. L. Chilton, 1124 Busch Bldg., Dallas, Tex.—Addresses of manufacturers of fire extinguishers and sprinkler systems; view to agencies.

Gasoline-rendering Machinery.—Hydro-Carbon Co., W. G. Leet, Prest., First National Bank Bldg., Shreveport, La.—Prices on rendering machinery for casing-head gasoline plants.

Generator (Electric).—Electric Motor Exchange, Miami, Fla.—Second-hand 17 1/2, 18 or 20 K. W., D. C., 125-volt generator, direct connected to oil engine complete. Give lowest quotation.

Heater (Water).—M. C. Parker, Ennis, Tex.—Information on instantaneous water heater for bathrooms and kitchen in \$15,000 residence.

Heating and Drying (Exhaust Steam) Equipment.—W. F. Dull, care of Basic Furniture Co., Waynesboro, Va.—Correspondence with contractors who supply material, with working drawings and specifications, for installing system to utilize, for heating and drying purposes, the exhaust steam from 250 H. P. boiler in furniture factory.

Heating Plant.—A. Snyder, 141 Queen St., Martinsburg, W. Va.—Bids on heating plant for double brick dwelling.

Hoists (Chain, Steam).—Gooney Manor Copper Co., Front Royal, Va.—3 to 5-ton chain hoist; double drum skeleton steam hoist.

Hose.—See Water-works Equipment.—City of Vian, Okla.

Hose.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 20,800 ft. fire hose (cotton, linen), schedule 960, delivery Philadelphia, Norfolk; 160 ft. flexible steel fuel oil hose, schedule 960, delivery Charleston, S. C.; 5000 ft. upper-deck rubber fire hose, schedule 978, delivery Puget Sound; 1300 ft. rubber suction hose, schedule 978, delivery Mare Island.

Ice Cream Cone Machinery.—Baltimore Mfg. Co., 507 Bradford St., Baltimore, Md.—Prices on machinery for making ice cream cones of different sizes.

Ice and Cold-storage Equipment.—J. A. Matthews, Albany, Tex.—Data and prices on ice and refrigerating system for home use on cattle ranch; natural gas available.

Ice Machinery.—J. S. Hughes, Erick, Okla.—Interested in prices on 7-ton raw-water ice plant with fuel oil engine.

Irrigation Construction.—Cameron County Irrigation Dist. No. 2, Alha Heywood, Secy., San Benito, Tex.—To open bids about May 15 on 750,000 cu. yds. earth (two-thirds of this being new work and balance clean-out work); \$25,000 concrete structure work and some timber; \$50,000 improvements at headgates; P. A. Welty, San Benito, Engr.

Iron (Chain).—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 1,975,000 lbs. chain iron, schedule 953, delivery Boston.

Jelly and Preserving Machinery.—Commercial Grove Co., 435 Main St., Bradenton, Fla.—Data and prices on jelly-making, preserving, filling and labeling machinery.

Laundry Machinery.—John Thompson, 1600 Third Ave., Richmond, Va.—Addresses of manufacturers of laundry machinery.

License Plates.—Tennessee State Dept. of Highways, J. J. Murray, Secy., 405 Seventh Ave. N., Nashville, Tenn.—Bids until May 3 on automobile and motorcycle license plates; estimated number for year 1918 includes 40,000 sets automobile plates, 1000 sets demonstration plates, 500 sets motorcycle plates; specifications obtainable from Secy.

Lighting Equipment.—J. E. Stone, Jasper, Tex.—Prices on electrical or other lighting equipment for \$6000 to \$8000 store and lodge building.

Levee Construction.—Ferrelly Lake Levee Board, John M. Gracie, Chrmn., Pine Bluff, Ark.—Bids until May 7 to construct 500,000 cu. yds. new levee and 200,000 yds. enlargement work on old levee; separate bids on new work and enlargements; new work suitable for drag line; old work, teams or drag line; Humphreys & Tovey, Engrs., Pine Bluff.

Locomotive.—Cambro-Clinton Mining Corporation, 209 N. 21st St., Birmingham, Ala.—Prices on 30-in. gauge Dinky.

Locomotives.—McCurain Coke Co., O. W. M. Miller, Secy.-Treas., First National Bank Bldg., Fort Smith, Ark.—2 standard gauge locomotives to haul 500 long tons, net loads, over 2 per cent. net grades.

Locomotives.—Maryland Equipment & Supply Co., Equitable Bldg., Baltimore, Md. Six-ton steam 30-in. gauge, 4-driver, saddle-tank locomotive; 10-ton steam 36-in. gauge, 4-driver S. T. type.

Locomotives, etc.—Bureau Supplies and Accounts, Navy Department, Washington, D. C.—Bids until 10 o'clock May 8 for delivering air compressors, emery grinders, lathes, lavatories and pump closets, locomotive, milling machine, punches, shears, trimmers, vertical shaper, and saw tables at navy-yard, Portsmouth, N. H. Apply for proposals to supply officer, navy-yard, Portsmouth, or to Bureau.

Lumber.—Navy, Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 22,000 ft. boat-building cypress, and 4000 ft. African or Mexican mahogany, schedule 961, delivery Philadelphia; 1025 ft. oars (straight, white ash), schedule 965, delivery Portsmouth, N. H.; 250 oars (straight, white ash), schedule 978, delivery Mare Island white pine, schedule 961, delivery Brooklyn, Washington; yellow pine, schedule 961, delivery Norfolk; poplar, schedule 961, delivery Brooklyn, Charleston, S. C.; New England spruce, schedules 991 and 991, delivery Boston, Brooklyn; 20,000 ft. teak logs, schedule 961, delivery Boston.

Machines and Tools.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish combined steam and hand steering engine, schedule 997, delivery Boston; 2 head buffing lathes, schedule 996, delivery Brooklyn, 3 triple-gear engine lathes, schedule 995, and lock-stitch sewing machine, schedule 962, delivery Washington; engine lathe (84-in. x 76-ft. bed), 2 Universal turret lathes, heavy milling machine, and motor-driven 10 1/2-in. vertical shaper, schedule 998, delivery Portsmouth, N. H.; heavy duty shaft lathe, and motor-driven wood planer, schedule 950, delivery Mare Island; 2 turret lathes, schedule 971, delivery Charleston, S. C.; flanging machine, schedule 970, and 3000-ton forging press, schedule 968, delivery Norfolk; motor-driven horizontal punch, and motor-driven plate joggling rolls, schedule 949, delivery Puget Sound.

Machine Shop Equipment, etc.—Judd Bros. Motor Co., Loyd W. Judd, Mgr., Miami, Okla.—Open bids July 1 on garage and machine shop equipment.

Machine Tools.—See Locomotives, etc.—Bureau Supplies and Accounts.

Machine Tools.—Bureau Supplies and Accounts, Navy Department, Washington, D. C.—Bids until May 8 for delivering high-pressure blower, lathes, screw machine, and nickel-steel forgings at navy-yard. Apply for proposals to Bureau.

Machine Tools.—Bureau Supplies and Accounts, Navy Department, Washington, D. C.—Bids until May 8 for delivering disintegrator, dry goods and notions, engine, lathe, drilling machines, and shaper at navy-yard, Charleston, S. C. Apply for proposals to supply officer, navy-yard, Charleston, or to Bureau.

Manufacturers.—Enrique Clair, constructor of modern buildings, Casilla de Correo 587, Asuncion, Paraguay, S. A.—To represent American manufacturers of: Novelties; toys for children; notions and small articles of little value, for use as premiums; iron work and hardware for doors and windows; measures; levels; plummets; lead (graphite) and trowels for brick masons and builders; paper for designs and plans; carbon paper; curiosities; novelties of all kinds; cheap toys.

Manufactures.—Cuban Publishing Co., Department Commercial, Ant. Aznar, Gen. Mgr., Habana, Cuba.—To represent manufacturers of containers of glass of definite capacities for holding mucilage and liquid pastes; paper tubes suitable for forwarding by mail reviews, catalogues and other printed matter; machinery for making paper tubes, together with quotations and prices for paper board for same; matches, special and regular, mounted in strips of 10 to 30 matches, for books, also emery in strips for lighting same; pencils or small brushes for use with paste pots; articles for advertising purposes, such as penknives, pencils, paper cutters, etc.

Metals.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 5000 lbs. ingot aluminum, and 2000 lbs. ingot antimony, schedule 975; also 150 tons foundry pig-iron, schedule 974, delivered Puget Sound; 225 tons foundry pig-iron, schedule 962, delivered Portsmouth, N. H.; pig-lead and sheet-lead, schedule 966; zinc (hull, blank, sheet slab), schedule 987, and 43,000 lbs. zinc (boiler, rolled, sheet), schedule 988, various deliveries; 2000 lbs. solder (half and half), and tin (sheet, bright, roofing), schedule 965, delivery Philadelphia.

Mining (Coal) Equipment.—Viacoa Smokeless Fuel Co., C. P. Phillips, Mgr., Beckley, W. Va.—Prices on general mining equipment; steel rails, bolts, etc.

Mining (Graphite) Machinery.—Benj. Russell, care of Russell Mfg. Co., Alexander City, Ala.—Information on graphite development; and prices on graphite-mining equipment and machinery.

Mixer, etc.—G. J. Adams, 39 South St., New York.—Jacketed copper kettle, 100 gals. capacity, with mixer.

Motor (Electric).—Hombre Coal Co., M. G. Yingling, Mgr., 312 Fayette Bank Bldg., Lexington, Ky.—Prices on electric motor; for installation Hombre, Ky.

Motor Cars, etc.—R. Pequeno, Apartado de Correos, 336 Barcelona, Spain.—To represent manufacturers of motor cars, rebuilt typewriters, bicycle accessories, etc.

Nut Machines.—See Shears, etc.—Henry Potts & Co.

Oil (Lubricating) Manufacturing Supplies.—U. S. Gun Oil Co., J. M. Johnson, Secy., 219 La Branch St., Houston, Tex.—Correspondence with manufacturers of supplies for making and bottling lubricating oil.

Oils and Greases (Lubricating).—Panama Canal, Earl I. Brown, Gen. Purchasing Officer, Washington, D. C.—Bids until May 14 to furnish lubricating oils and greases, annual estimate for period ending June 30, 1918; blanks, etc., relating to circular (No. 1140) obtainable this office or offices Asst. Purchasing Agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, and Fort Mason, San Francisco; also from United States Engr. offices throughout United States.

Paving.—City of Beaufort, S. C., H. G. Otis, City Mgr.—Bids until May 10 for laying about 13,000 sq. yds. paving; cement-concrete, bitulithic on 4-in. concrete base, or Warrenite on shell macadam base, and 3000 lin. ft. concrete curb or curb and gutter; specifications obtainable office of City Mgr.

Paving.—W. O. Crisman, City Engr., Selma, Ala.—Bids until May 4 to construct concrete sidewalks on north side Alabama Ave. from Franklin to Mechanics St.; plans and specifications on file with City Engr.

Paving.—City of Selma, Ala., W. O. Crisman, City Engr.—Bids until May 18 for curbing, paving, etc., on Selma Ave. as per Improvement Ordinance No. 79; Alabama Ave., Ordinance 75; Alabama Ave., Ordinance 76; plans and specifications may be seen at office of City Engr.

Paving (Asphalt) Equipment, etc.—Municipal Construction Co., J. W. Williams, Secy., 633 14th St., Miami, Fla.—Correspondence with contractors of small asphaltic paving contracts; also correspondence with parties having small outfits to lease for such work.

Paving.—City of Birmingham, Ala., Julian Kendrick, City Engr.—Bids to construct sheet asphalt paving, etc., under improvement ordinances Nos. 952-C and 948-C; also asphaltic concrete paving, etc., under improvement ordinance No. 927-C; specifications may be obtained and plans examined at office of City Engr.

Paving.—City of Edenton, N. C., J. R. McMullan, Clerk.—Bids until May 7 to construct 25,000 sq. yds. asphalt, concrete or brick pavements with curbing, storm drainage, etc.; specifications obtainable for \$2 from Clerk or from Engr., J. B. McCrary Co., Third National Bank Bldg., Atlanta, Ga.

Paving.—City of Lenoir, N. C., B. F. Williams, Mayor.—Bids until April 30 to pave streets and sidewalks; 35,000 sq. yds. street paving, 10,000 sq. yds. sidewalk paving, 1300 sq. yds. concrete gutter, 5000 lin. ft. combined curb and gutter, 2000 lin. ft. granite or cement curb, 1700 lin. ft. storm drain from 12 to 20 inches, intake basins, manholes, etc.; plans and specifications on file with E. W. Cole, Engr., Lenoir.

Paving.—City of Bluefield, W. Va., J. T. Akers, Recorder.—Bids until May 11 to pave with bituminous macadam on concrete base and construct curbs and gutters on sections of Williams and Franklin Sts. and Roy Ave.; plans and specifications on file with City Engr.

Paving.—Commrs. Improvement Dist. No. 1 (L. D. Ballow, W. W. Bethell and John W. Booth), Des Arc, Ark.—Bids to construct 11,036 sq. ft. concrete sidewalks; plans and specifications furnished for \$2; let contract April 25.

Paving, etc.—City of Cumberland, Md., Ralph L. Rizer, City Engr.—Bids until April 30 to pave and otherwise improve 12 streets and construct conduit; 14,140 lin. ft. concrete curb, 6100 sq. yds. brick paving, 930 sq. yds. wood block paving, and 23,600

sq. yds. cement concrete paving; 525 lin. ft. 6x4-in. reinforced concrete conduit; plans and specifications obtainable from City Engr. for \$1. (Date of opening bids postponed from April 23, lately noted.)

Pipe (Galvanized Steel).—John F. Riley Foundry and Machine Works, Charleston, S. C.—To buy double extra strong galvanized-steel pipe, no threads, plain ends, as follows: 8 pcs. 3½", 15' long; 4 pcs. 3", 10' 0" long; 8 pcs. 2½", 10' long; 4 pcs. 2½", 15' long; 4 pcs. 2½", 12' long; 4 pcs. 2", 9' long; 4 pcs. 1½", 8' long; 4 pcs. 1½", 6' 6" long; 4 pcs. 1½", 3' 6" long; state price and time of delivery.

Pipe (Wrought Iron).—Cambro-Clinton Mining Corp., 209 N. 21st St., Birmingham, Ala.—Prices on 4500 ft. 3-in. and 2000 ft. 2-in. wrought-iron pipe.

Pipe and Fittings.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish fittings (pipe, iron, steam and water), schedule 973, delivery Mare Island; nozzles (after bulkhead, valve bodies), schedule 951, delivery Newport, R. I.; 20,000 ft. pipe (conduit, sheet galvanized), schedule 962, delivery Philadelphia; lead pipe, schedule 986, various deliveries; steam traps and flanged reducing valves, schedule 992, delivery Charleston, S. C.; 900 metallic hose unions, schedule 990, delivery Washington; unions (malleable, iron, galvanized; steam and water), schedule 973, delivery Mare Island.

Piping.—Dilworth Oil & Refining Co., Newkirk, Okla.—To open bids within 60 days on 2 mi. 2 and 4-in. piping.

Piping.—Williams-Abney Co., G. W. Williams, Gen. Mgr., Salt Lick, Ky.—Prices on 6½ and 8½ casing.

Plates.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish plates (rolled brass, becket, hinges, keepers, hasps), schedule 990, delivery Washington.

Plows (Tractor, Oil or Gasoline).—Southern Machinery Exchange, Somerset, Ky.—Correspondence with manufacturers of tractor (oil or gasoline) plows; view to representation in Kentucky and part of Tennessee.

Power Plant.—John V. Moore, 571-3 McClelland Bldg., Lexington, Ky.—Information on power plant for hotel 76x90 ft.

Pump.—See Water-works Equipment.—City of Vian, Okla.

Pumps.—See Building Materials.—State Board of Health.

Pump (Duplex).—G. J. Adams, 39 South St., New York.—Second-hand duplex pump, 2000 G. P. M. capacity.

Pumps.—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until May 15 for delivering horizontal pumps at naval hospital, Las Animas, Col. Apply for proposals to commanding officer, naval hospital, Las Animas, or to Bureau.

Pumps, etc.—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until May 8 for delivering pumps, hose racks and laundry supplies at navy-yard, Norfolk. Apply for proposals to supply officer, navy-yard, Norfolk, or to Bureau.

Rails.—Gooney Manor Copper Co., Front Royal, Va.—Prices on 25 to 30 tons 67 or 70-lb. good relaying rails.

Rails.—See Mining (Coal) Equipment.—Vincova Smokeless Fuel Co.

Rails (Mining).—Grundy Banner Coal Co., Grundy, Va.—5 tons 12-lb. mining rails; prefer second-hand, good condition; quote price f. o. b. Putnam, Va., on 5 and 10-ton lots rail.

Refinery (Oil) Equipment.—Dilworth Oil & Refining Co., Newkirk, Okla.—Prices on equipment for refinery of 5000 bbls. capacity and 2 casing-head plants.

Road Construction.—Holmes County, J. H. Fuqua, Chancery Clerk, Lexington, Miss.—Bids until April 30 to construct 3½ mi. gravel and 10 mi. sand and clay highways; plans and specifications on file with R. F. Cornell & Co., Engrs., Durant, Miss.

Road Construction Materials.—Stein & Harbert, Engrs., Sunflower County, Dist. No. 3, Indianola, Miss.—Prices on gravels, cements, cast-iron and vitrified culvert pipe, bituminous binder, screenings, etc.

Road Construction.—Greenbrier County Commrs., John S. Crawford, Clerk, Lewisburg, W. Va.—Bids until May 1 to grade, widen and surface with bituminous macadam, penetration method and water-bound macadam, 17.5 mi. road in Fort Spring Dist.; blank forms and specifications from W. E. Dougher, Dist. Engr., Ronceverte, W. Va.

Road Construction.—Commrs. Lawrence County Road Improvement Dist. No. 2 (J. A. Fender, J. G. Richardson and J. W.

Latham), Walnut Ridge, Ark.—Bids until May 1 to construct 5½ mi. macadam road; 18,319 cu. yds. excavation; 6 acres clearing and grubbing; 120 lin. ft. 18-in. corrugated pipe; 240 lin. ft. 18-in. corrugated pipe; 48 lin. ft. 30-in. corrugated pipe; 50 cu. yds. reinforced concrete; 27 cu. yds. plain concrete; 6568 tons crushed stone; 25 lin. ft. steel bridge; plans and specifications may be seen and blank forms obtained from F. A. Pritchett, Engr., Walnut Ridge, or from Ponder, Gibson & Ponder, Attys., Walnut Ridge.

Road Construction.—Lake County Commissioners, H. H. Duncan, Clerk, Tavares, Fla.—Bids until May 7 to construct roadways, Howe Special Dist.; 121,200 lin. ft. roadway; 31,717 cu. yds. excavation; 218,800 sq. yds. sand-clay surfacing; 70 acres clearing and grubbing; 180 ft. 18-in., 180 ft. 15-in. and 180 ft. 12-in. T. C. drains; 700 lin. ft. bridge reconstruction (Brown's Ford); bids asked for sand-clay surfacing; plans and specifications may be seen at office of County Clerk, at Bougainville Hotel, Howe, or office of Engr., and specifications are obtainable from County Clerk, or from Engr., E. J. Close, Leesburg, Fla.; copies of plans obtainable from Engr. for \$7.50 per set.

Road Construction.—Commrs. Lawrence County, Road Improvement Dist. No. 1 (J. A. Fender, J. G. Richardson and J. W. Latham), Walnut Ridge, Ark.—Bids until May 1 to construct roads; 75,500 cu. yds. excavation; 55 acres clearing and grubbing; 66 lin. ft. 15-in. corrugated pipe; 370 lin. ft. 24-in. corrugated pipe; 200 cu. yds. reinforced concrete; 200 cu. yds. plain concrete; 36,545 tons crushed rock; 300 lin. ft. steel bridges; plans and specifications may be seen and blank forms obtained from F. A. Pritchett, Engr., Walnut Ridge, or from Ponder, Gibson & Ponder, Attys., Walnut Ridge.

Road Construction.—Brooke County Court, C. A. Eichelberger, County Road Engr., Wellsburg, W. Va.—Bids until May 24 to construct 3 sections, about 9.2 mi. road; brick, bituminous or asphaltic concrete, bituminous macadam or concrete; bids at same time on 6.3 mi. water-bound or tar-bound macadam.

Road Construction.—Miller County Highway and Bridge Dist., Louis Joseph, Secy., 436 State National Bank Bldg., Texarkana, Ark.—Bids until May 10 to construct 70 mi. highway; contract 1, Fulton Rd., 18 mi.; contract 2, Index Rd., 8 mi.; contract 3, Carr Bend Rd., 4 mi.; contract 4, Dooley Ferry Rd., 12 mi.; contract 5, Garland City Rd., 18 mi.; contract 6, Genoa Rd., 6 mi.; contract 7, Line Ferry Rd., 4 mi.; bids for 1 or more of contracts; contract 1 for road surfaced with gravel, penetration asphalt, asphalt carpet coat or concrete; other contracts for roads surfaced with gravel; specifications mailed to applicants May 1; plans at offices of Engrs. after April 25; plans, profiles, etc., obtainable from Engrs. for \$25; Engrs., Lund & Hill, 527 Southern Trust Bldg., Little Rock, and Christian & Ayres, 425 State National Bank Bldg., Texarkana.

Road Grader.—Washington County Highway Commission, 4th Floor Weinberg Bldg., Greenville, Miss.—Bids until May 4 for road grader with 12-ft. blade, to be pulled by traction engine; specifications must be submitted by bidders not less than 3 days prior to letting to J. S. Allen, Ch. Engr., Greenville.

Road Improvements.—Rapides Parish Supvrs., Road Dist. No. 8 (J. W. Texada, of Boyce, La., Prest.), Alexandria, La.—Bids until May 26 for grading, bridging, culvert and drains; hauling, placing and rolling of gravel surface; gravel, sand, stone, reinforcement and bridge material, for construction of Units 1, 2 and 3; about 15 mi.; plans and specifications on file office of Ira W. Sylvester, Engr., Alexandria.

Road Materials.—State Highway Dept., J. J. Murray, Secy., 405 7th Ave. N., Nashville, Tenn.—Bids until May 7 to purchase and deliver 510,000 gals. bituminous materials, f. o. b. cars with special heater attachments, separately for Section 1, Memphis; Section 2, Jackson; Section 3, Nashville; Section 4, Chattanooga; Section 5, Knoxville; specifications on file with State Highway Dept. and will be furnished on application; also let contract under same specifications for additional bituminous material, about 200,000 gals., for several municipalities; A. M. Nelson, Engr.

Road and Bridge Construction.—Putnam County Commrs., R. J. Hancock, Clerk, Palatka, Fla.—Bids until May 25 on 29 mi. road construction (consider vitrified brick, asphalt, asphaltic concrete, asphalt block and concrete pavements), with curb and pipe drainage, 2 reinforced concrete bridges and 5 reinforced concrete culverts; plans

and specifications can be seen at office of County Clerk and specifications obtainable from Clerk for \$5.

Safes.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 45 pay officers' safes, schedule 963, delivery Brooklyn.

Sewer Construction.—Dist. Commrs., 509 Dist. Bldg., Washington, D. C.—Bids until May 1 to construct 12 storm water receiving basins and 200 lin. ft. 12-in. diam. pipe sewer connections; proposal forms, specifications and information from Chief Clerk, Engr. Dept., Room 427, Dist. Bldg.

Sewer Construction.—City of Tulsa, Okla., H. H. Wyss, City Engr.—Bids until April 30 to construct sanitary sewer in Sewer Districts, Nos. 14, 61, 107, 114, 129; also sanitary sub-main sewer in Brady St.; plans, profiles and specifications on file with City Engr.

Sewer Construction.—City of Mt. Rainier, Md., Peter J. Hagen, Clerk, asks bids until May 25 on 10 mi. sanitary sewer construction.—See Water-works and Sewer Construction.

Sewer Construction.—Dist. Commrs., 509 Dist. Bldg., Washington, D. C.—Bids until May 19 to construct 5700 lin. ft. masonry sewers, 3 to 8-ft. span; also 5800 lin. ft. pipe sewers, 10 to 24-in. diam.; proposal forms, specifications and information from Chief Clerk, Engr. Dept., 427 Dist. Bldg., Washington.

Sewage Disposal.—Geo. F. Grant, Mayor, Abingdon, Va.—Data on sewage-disposal methods and plants, including cost.

Shears, etc.—Henry Potts & Co., 650 Real Estate Trust Bldg., Philadelphia, Pa.—Two alligator shears, capacity 4x1 in., Pitman type preferred; alligator shear, to handle 6x6-in. steel; guillotine shear, capacity 6x½ in.; 2 Dunham nut machines, ½ to ¾-in. capacity; 2 square headers (Burdick or Pawtucket type preferred), ¾-in. or larger; spike machine, automatic type, Youngs-town or Vandegrift preferred; plate shear, capacity up to 36x½-in.

Spike Machine.—See Shears, etc.—Henry Potts & Co.

Sprinkler Systems.—See Fire Extinguishers, etc.—A. L. Chilton.

Stamping Brackets, etc.—Cunningham Springless Shade Co., Greensboro, N. C.—Prices on stamping brackets, pintles and caps.

Steam Shovel.—McCurran Coke Co., O. W. M. Miller, Secy.-Treas., First National Bank Bldg., Fort Smith, Ark.—Steam shovel of 3-yd. capacity dipper; 60-ft. boom.

Tanks.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 40,000 tanks (powder, powder charges), delivery Lake Denmark, Dover, N. J.; also powder and cartridge tanks, f. o. b. works; all schedule 981.

Taps and Dies.—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until May 8 for delivering taps and dies at navy-yard, Philadelphia. Apply for

proposals to supply officer, navy-yard, Philadelphia, or to Bureau.

Ties (Railroad).—Gooney Manor Copper Co., Front Royal, Va.—Prices on 600 third-class standard railroad ties; black oak, chestnut oak or red oak.

Trichlorethylene.—United Oil Mills, Hope, Ark.—Trichlorethylene for cottonseed-meal solvent.

Vacuum Cleaner.—Dr. Walter E. Wright, Tulsa, Okla.—Prices on vacuum cleaner for \$160,000 office building.

Water-works Extensions.—City of Checotah, Okla., J. R. Lucas, Jr., City Clerk.—Bids until April 30 to furnish and install filtration plant, daily capacity 1,000,000 gals.; two 750 G. P. M. pumps, each direct connected to 75 H. P. motors; two 750 G. P. M. pumps, each direct connected to 35 H. P. motors; 4-panel switchboard; pumping station building; settling basin; clearwell; reinforced concrete reservoir, and installing 1200 tons 10-in. and 12-in. cast-iron pipe with fittings; plans and specifications obtainable office of Consult. Engr., Benham Engineering Co., Colcord Bldg., Oklahoma City.

Water-works Equipment.—City of Vian, Okla., A. G. Arnold, Prest. Board.—Prices on 1000 ft. 2-in. galvanized pipe; pumps of 750 G. P. M. capacity; 1000 ft. 2½-in. water hose.

Water-works and Sewer Construction.—City of Mt. Rainier, Md., Peter J. Hagen, Clerk.—Bids until May 25 to construct 10 mi. sanitary sewers, 8 to 12-in. diam.; 10 mi. water mains, 4 to 8-in. diam.; water-works pumping station, and steel tank and tower; bids received for entire work or portions; plans and specifications at Clerk's office, or office of Harry Stevens, Consult. Engr., Union Trust Bldg., Washington, D. C., and obtainable from Engr. for \$5.

Well-drilling (Oil) Equipment.—J. A. Leggett, Horse Creek Oil Co., Pensacola, W. Va.—Prices on outfit to drill 1500 or more feet; for installation Jackson and Clay counties, Ky.

Wire.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 800 lbs. soft composition wire, schedule 962, delivery Philadelphia; phosphor-bronze wire and crucible steel wire, schedule 960, delivery Puget Sound.

Wire Cable.—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until May 8 for delivering electric cable and pot-head wire at navy aeronautic station, Pensacola, Fla. Apply for proposals to supply officer, navy aeronautic station, Pensacola, or to Bureau.

Wire (Screen Door).—Geo. W. Bolinger, Klondike, Tenn.—Catalogs, samples and prices of wire for screen-door manufacture.

Woodworking Machinery.—Hall Lumber Co., Flemingsburg, Ky.—Prices on planer, matcher and molder, about 24x6; 8-in. jointer; small spindle shaper.

RAILROAD CONSTRUCTION

RAILWAYS

Fla., Tampa.—West Coast Electric Ry. will be built via either Bayshore or Parrish, from Tampa southward to Venice, Fla., 68 mi., including 3 steel bridges, longest about 1 mi. Will ask construction bids immediately after local work is finished. E. M. Raymond, 1323 Land Title Bldg., Philadelphia, Pa., is Prest., and A. E. Townsend, Sarasota, Fla., Gen. Mgr. and Ch. Engr. Will use Edison storage battery system.

Ga., Atlanta.—Atlanta & Anderson Railway Co. has organized by electing J. L. Murphy Prest. and Mark Bolding Secy. It was announced at the stockholders' meeting that construction would begin as soon as the Georgia Railroad Com. authorized the issue of securities. Route is from Atlanta, Ga., to Anderson, S. C., about 140 mi. Other directors besides the officers are: J. G. Craft, G. W. Westbrook, H. P. de la Perrie, I. H. Phillips, William D. Bowers, W. B. Hardman, C. J. Hood, W. H. Smith, R. L. J. Smith, W. E. Simmons, Albert Howell, Jr., L. G. Greer and Hugh Howell; H. M. Atkinson of Atlanta is also prominently interested.

Ky., Ashland.—Powell & Clarke of Ashland are engineers for the proposed traction line from Ashland to Russell, Ky., 5 mi., for which contract was let to Vaughan Construction Co. of Shawsville, Va. J. L. Vaughan is interested. Extension may be made to Greenup, Ky., 10 mi.

Md., Hagerstown.—Cumberland Valley R. R. is reported to have let contract to the Mason & Hanger Co., Lexington, Ky., for an extension of second track, which will include about 1½ mi. near Hagerstown.

Miss., Paulding.—Track is reported laid on 7 mi. of the Mississippi & Western Ry. under construction from Paulding to Stevens, Miss., 17 mi. C. W. Fouke, Gen. Mgr. of Standard Lumber Co., Texarkana, Ark., is Prest. and W. G. Little, Gen. Mgr.

Tex., Dallas.—C. W. Hobson and associates, who were granted franchises for street railways and interurban railroads out of Dallas, are not, says Mr. Hobson, prepared to announce definite plans, which may not be given for two or three months.

Va., Norfolk.—Norfolk & Portsmouth Belt Line Railroad Co. will build with company forces 2½ mi. from Brush Creek to Elizabeth River, being part of the extension to the property of the Virginia Terminal Co., the rest being covered by leased line. Geo. S. Shafer is Prest. and Gen. Mgr.

W. Va., Charleston.—Charleston-Gauley Electric Ry. Co., capital stock \$100,000, is chartered to build line from Charleston to Gauley Bridge, W. Va., 35 or 40 mi. Chas. C. Dickinson is Prest. Inceprts.: George P. Alderson, George B. Brooks, John Y. Arter, B. T. Clayton and J. H. Nash, all of Charleston.

W. Va., Flemington.—Baltimore & Ohio R. R., having obtained right of way in dispute, will build short branch from Flemington to Astor. R. N. Begien, Baltimore, Md., is Ch. Engr.

STREET RAILWAYS

S. C., Spartanburg.—South Carolina Light, Power & Railways Co., as a result of a legal decision, is to build an extension to Whitney, and also to rebuild part of its Clifton line. F. H. Knox is V. P.

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R. VINTON LANSDALE, Cashier.
C. G. MORGAN, Asst. Cashier.
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FINANCIAL NEWS

FINANCIAL CORPORATIONS

Ark., Greenwood.—Citizens' National Bank, capital \$25,000, is organized with I. H. Nakdimen, Pres., Fort Smith; F. G. Gunther, V.-P.; V. R. Brownfield, Cashier.

Ark., Proctor.—Proctor Investment Co. of Proctor has filed articles of incorporation; capital \$30,000. Inceprts: W. E. Elder, R. H. McWilliams and W. C. Bonner.

Fla., Moore Haven.—First Bank of Moore Haven inceptd.; capital \$15,000. Directors: J. J. O'Brien, N. A. Colbert, F. H. Parker, Moore Haven; B. F. Welles, W. G. Welles, John W. Burton and H. L. Carlton, Arcadia. Business has begun.

La., Thibodaux.—First National Bank of Lafourche Parish has made application for charter; capital \$50,000.

Md., Baltimore.—Bankers Securities Corporation is organized with the following directors: Geo. Allison, Jos. Castelberg.

A. I. Fink, Frank Gould, Joseph J. Hock, Howard W. Jackson, Roland R. Marchant, Thomas A. Marshall, J. Ross Meyers, Isaac Oppenheim, O. E. Weller and Samuel L. Willard. T. A. Marshall is Acting V.-P. and A. J. Fink, Secy.-Treas.

Md., Baltimore.—The State Bank of Maryland at Baltimore has been taken over by the Baltimore Trust Co. under an arrangement by which the latter controls the bank with seven out of thirteen directors. The bank will continue to be operated separately, as will its two branches. Wm. Ingle, Pres. of the Baltimore Trust Co., has become president of the bank, succeeding W. W. Cloud, who remains as chairman of the Board of Directors. The trust company guarantees the bank deposits, which, it stated, now amount to about \$3,200,000. The capital is \$500,000.

Md., Cumberland.—The Mutual Association is inceptd. by George L. Wellington, George D. Landwehr and Charles G. Holshu.

N. C., Belee.—Belee Bank & Trust Co., capital \$10,000, is chartered. Organizers: L. H. Dunlap, W. J. Tally and others.

N. C., Gastonia.—The Bank of Gastonia instead of the Third National Bank of Gastonia is organized with \$50,000 capital; M. A. Turner, Pres., Grover, N. C.; D. C. Ross, V.-P., Gaffney, S. C.; M. A. Turner, V.-P. and Cashier, Grover.

Okla., Butler.—First National Bank of Butler is chartered; capital \$25,000.

Okla., Hartshorne.—Hartshorne National Bank has made application for charter; capital \$30,000.

Tenn., La Follette.—People's Bank of La Follette, capital \$25,000, is inceptd. by W. A. Carden, H. G. Murray, David Reynolds, W. F. Burnette and L. C. Crews.

Tex., Rule.—Farmers State Bank has begun business; capital \$15,000.

Tex., Fort Worth.—Bankers Loan & Securities Co. of Texas has filed charter changing its name to the Bankers Loan & Securities Co.

Va., Norfolk.—Southern Savings & Finance Co., Inc., has filed articles of incorporation; capital \$500,000. W. S. Bensten, Pres.; Chester H. Prince, 1st V.-P.; Ludwell Baldwin, 2d V.-P.; H. O. Nichols, Treas.; L. P. Matthews, Secy.

NEW SECURITIES

Ala., Attalla.—(School).—\$11,000 of bonds are voted. Address The Mayor.

Ala., Clanton.—(Courthouse).—\$200,000 of 5 per cent. 25-year Clifton County bonds are voted. Address County Commrs.

Ala., Clanton.—(Road and Bridge Warrants).—\$100,000 of an authorized issue of \$200,000 of 5 per cent. 30-year bonds voted April 16 to refund road and bridge warrants have been purchased at par by Steiner Bros., Birmingham. The remaining \$100,000 are for sale now. J. H. Reynolds is Judge of Probate.

Ala., Florence.—(Water).—\$50,000 of 6 per cent. 19-year bonds have been purchased at \$1500 premium by Powell, Garrard & Co., Chicago.

Fla., De Land.—(School).—\$8000 of Dist. No. 21, Holly Hill, Volusia County, bonds have been purchased at 5 per cent. premium by Bumpus & Co., Detroit, Mich.

Fla., Groveland.—(School).—\$7000 of bonds are voted. Address School Board.

Fla., Milligan.—(School).—\$15,000 of 6 per cent. 30-year \$1000 denomination bonds Special Tax School Dist. have been purchased at \$16,915 by C. H. Coffin, Chicago, Ill.

Fla., Perry.—(Street, Water, Sewer).—Election is to be held May 15 to vote on about \$75,000 of street paving and \$20,000 of water mains and sewer bonds. Address The Mayor.

Ga., Oglethorpe.—(Road).—Bids will be received until 10 A. M. May 3 by Bd. of Commrs. of Roads and Revenue, A. H. Perry, Clerk, for \$100,000 of 4½ per cent. 1-30-year Macon County bonds. Dated April 1, 1917. Denomination \$1000.

Ga., Sandersville.—(School).—\$20,000 of 5 per cent. 30-year \$1000 denomination bonds have been purchased at \$21,410 by Ben. J. Tarbuton, Jr., of the Citizens Bank, Sandersville.

Ga., Smyrna.—(School).—Bids will be received until April 27 for \$150,000 of 5 per cent. School Dist. bonds, maturing Jan. 1, 1918, to 1937, inclusive. Address S. D. Rickenbaker, Secy. Board of Education.

Fla., Sumterville.—(Road).—\$475,000 of bonds Dist. No. 4, Sumter County, are voted. Address Chrmn. Board County Commrs.

Ky., Flemingsburg.—(School).—\$25,000 of 4 per cent. \$1000 denomination Flemingsburg Graded High School Dist. bonds maturing \$1000 each year are voted. J. M. McIntire is Secy. School Board.

Ky., Hazard.—(Road).—\$150,000 Perry



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County bonds defeated. B. P. Combs is Clerk.

Ky., Princeton—(Road).—Election is to be held in Caldwell County May 28 to vote on \$225,000 of bonds. Address County Commrs.

Ky., Winchester—(Water-works).—\$180,000 of 20-40-year bonds have been declared valid by the Court of Appeals. Address The Mayor.

La., Abbeville—(Drainage).—\$48,000 of bonds Conlee-Kinney Drainage Dist. are voted. Address Bd. of Commrs.

La., Floyd—(School).—Ordinance has been prepared authorizing the issuing of \$10,000 of 5 per cent. \$500 denomination bonds Oak Grove School Dist. No. 2, West Carroll Parish, maturing Feb. 1, 1918, to Feb. 1, 1937. W. A. Ross is Pres. West Carroll Parish School Board.

La., Alexandria—(School).—Following districts in Rapides Parish have voted bonds: Tioga and Rapides School Dists. \$12,500; Echo Dist. \$6000. T. C. Wheadon is Pres. Police Jury.

La., Edgard—(Road).—Election is to be held in June to vote on \$180,000 of bonds of St. John the Baptist Parish. Address Police Jury.

La., Oak Grove—(Light).—Bids will be received until noon May 1 for \$5500 of 5 per cent. 1-10-year \$100 denomination bonds. L. Grathwell is Village Clerk.

La., Opelousas—(Road).—Election is to be held in Road Dist. No. 6, St. Landry Parish, to vote on \$500,000 of bonds. Address Board of Supvrs. of said district.

Miss., Bay St. Louis—(School).—Board of Supervisors of Hancock County gives notice of intention to issue 6 per cent. bonds Kiln Consolidated School Dist. A. A. Kergosien is Clerk of the Board.

Miss., Catchings—(School).—Bids will be received until May 7 by F. B. Boykin, Treas. Sharkey County, Rolling Fork, for \$18,500 of 6 per cent. school bonds.

Miss., Drew—(Water-works).—\$8000 of 6 per cent. bonds have been purchased at 101.25 and interest by the Bank of Drew.

Miss., Edwards—(Refunding).—\$23,000 of 5½ per cent. bonds have been purchased at \$200 premium by the Bank of Edwards.

Miss., Mendenhall—(Highway).—Bids will be received until 2 P. M. May 7 by Board of Supvrs., Simpson County, for \$40,000 Fifth Supvrs. Dist. and \$100,000 of Central Highway Dist., not exceeding 6 per cent. 25-year bonds, dated April 2, 1917. T. J. Peacock is Clerk Board of Supvrs.

Miss., Meridian—(School).—Plans are being made to issue \$10,000 of bonds for Meridian School Dist. Address The Mayor.

Miss., Rolling Fork—(School).—Bids will be received until May 1 by F. B. Boykin, County Treas., for \$11,000 of 6 per cent. of Delta City Rural Separate School Dist., Sharkey County, bonds.

Miss., Vicksburg—(School).—Bids will be received until noon May 9 by J. D. Laughlin, Clerk Board of Supvrs. Warren County, for \$20,000 of 5 per cent. \$1000 denomination agricultural high-school bonds.

Mo., Amity—(School).—\$9500 of 5½ per cent. school bonds are voted. Address School Board.

Mo., Aurora—(Light).—\$25,000 of bonds are voted. Address The Mayor.

Mo., Kansas City—(School).—Election is to be held June 2 to vote on \$2,000,000 of bonds. Address Board of Education.

Mo., Kirksville—(Water, Light).—Election is to be held May 4 to vote on bonds for water-works improvement and electric-

light plant costing \$118,000. Dr. G. A. Goven is Mayor.

Mo., Mexico—(Sewer).—\$12,000 of sewer bonds are voted. Address The Mayor.

N. C., Asheville—(School).—\$150,000 of bonds to be voted on June 9 are 30-year 5 per cents. Denomination \$1000. J. E. Rankin is Mayor, and F. L. Conder, Secy.-Treas.

N. C., Elizabeth City—(Paving, Curbing, Stables, Fire Equipment).—\$84,000 of 5 per cent. \$1000 denomination bonds dated May 1, 1917, and maturing 1927 to 1947, inclusive, have been purchased at \$85,932.40 by Terry Briggs & Co., Toledo, Ohio.

N. C., Jefferson—(Road).—If the \$200,000 Ashe County bonds are voted May 8, they will be issued to the State of North Carolina. J. D. Stansberry is Clk. Bd. County Commrs.

N. C., Lumberton—(Road).—Election is to be held in Robeson County May 8 to vote on \$480,000 of bonds. Address County Commrs.

N. C., Nashville—(Road).—Election is to be held in Nash County May 8 to vote on \$15,000 of Manning Township and \$10,000 Dry Wells Township bonds. Address County Commrs.

N. C., Nashville—(School).—Bids will be received until May 12 by J. B. Boddie, Clerk Board Commrs. Nash County, for \$12,000 of 6 per cent. bonds Castalla Township, Nash County.

N. C., Plymouth—(School).—Bids will be received May 14 for \$15,000 of 5, 6½ or 6 per cent. 20-year Creswell High School Graded Dist., Washington County, bonds.

N. C., Pittsboro—(Road).—\$30,000 Williams Township, Chatham County, bonds are voted; Baldwin Township recently voted \$30,000. Address County Commrs.

N. C., Raleigh—(School).—\$15,000 Fuquay Springs and \$25,000 Wake Forest school dists., Wake County, 5 per cent. bonds, dated 1917, and maturing 1947, have been sold at par and \$236 and \$645 premiums, respectively, to C. W. McNear & Co., Chicago, Ill.

N. C., Rocky Mount—(Road).—Bids will be received until May 15 for \$10,000 of 6 per cent. 20-year \$500 denomination bonds Jackson Township Road Dist., Nash County. Address J. P. Bunn, Atty. for Road Commission, at Rocky Mount.

N. C., Roxboro—(Road).—The sale of \$225,000 of 5 per cent. serial bonds is postponed from May 8 until some time in June. Bonds will be dated July 1, 1917. M. R. Long is Chrmn. Central Highway Commission of Pearson County.

N. C., Salisbury—(Paving).—Bids will be received until 8 P. M. May 24 for \$75,000 of 5 per cent. 1-10-year bonds, dated June 1, 1917. Denomination \$1000. Walter H. Woodson is Mayor, and T. H. Vanderford, Jr., City Atty. Further particulars will be found in the advertising columns.

N. C., Thomasville—(Sidewalk).—\$8000 of 5 per cent. \$1000 denomination bonds, maturing 1947, have been purchased at par, plus blank Bonds, by Spitzer Rorick & Co., Toledo, Ohio.

N. C., Wilson—(School).—\$150,000 of Wilson Graded School Dist., Wilson County, bonds are voted. Address John R. Diddy, Clerk, and Chas. L. Coon, Supt. of Schools.

Okla., Ada—(Water-works).—Steps are being taken to vote on \$100,000 of bonds to provide additional water facilities. Address The Mayor.

Okla., Ada—(Water).—Election will soon be called to vote on \$60,000 of bonds. E. S. Hatliff is Mayor.

Okla., Alex—(School).—Election is to be

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Established 1891

Cincinnati, Ohio

held to vote on \$10,000 of bonds. Address School Board.

Okla., Altus—(Sewer).—\$15,000 of 5 per cent. 10-20-year bonds are voted. S. E. Hickman is Mayor.

Okla., Ardmore—(Road).—Hewitt Township, Carter County, will probably vote on \$100,000 of bonds. Address County Commrs.

Okla., Carmen—(Light).—\$25,000 of bonds were recently voted. Address The Mayor.

Okla., Cheyenne—(Courthouse, Jail).—\$50,000 bonds defeated.

Okla., Chickasha—(Road).—\$10,000 Tuttle Township, Grady County, bonds are voted. Address Board of County Commrs.

Okla., Clinton—(Water).—Ordinance is passed by City Council authorizing an issue of \$6000 of water-works improvement bonds. Address The Mayor.

Okla., Clinton—(Park).—\$40,000 bonds recently voted are 25-year 6 per cent. Denomination \$1000. R. E. Nelson is Acting Mayor, and J. A. Powell, Clerk.

Okla., Coyle—(Water).—Ordinance is pass-

ed by City Council authorizing issue of \$12,000 of bonds. Address The Mayor.

Okla., Duncan—(Courthouse, Jail).—Election will probably soon be held to vote on courthouse and jail bonds. Address The Mayor.

Okla., Edmond—(School).—\$15,000 of bonds are reported voted. Address School Board.

Okla., Guymon—(High School Bldg.).—\$57,000 of 6 per cent. 2-20-year \$1000 denomination bonds have been purchased at 1.05 by Geo. W. and J. E. Piersol, Oklahoma City.

Okla., Hobart—(Municipal Improvements).—Election will probably be called to vote on \$12,000 of bonds. Address The Mayor.

Okla., Jenks—(Sewer).—\$12,000 of bonds are voted. Address The Mayor.

Okla., Lahoma—(School).—Steps are being taken to call an election to vote on \$15,000 of bonds. Address School Board.

Okla., Madill—(Water).—Election is to be held May 3 to vote on \$75,000 of bonds. A. P. Marsh is Mayor.

Okla., Marietta—(School).—\$40,000 of Marietta School Dist., Love County, bonds are voted. Address Bd. of Education.

Okla., Muskogee—(Courthouse).—Election will probably soon be held in Muskogee County to vote on bonds for courthouse to cost \$115,000. Address County Commrs.

Okla., Okemah—(Sewer, Water, Light).—Election will soon be called to vote on \$55,000 of sewer and \$20,000 electric-light plant improvement bonds. J. B. Poynter is Mayor.

Okla., Oklahoma City—(Park).—Election is to be held May 8 to vote on \$300,000 of 4½ per cent. bonds for purchase of State Fair grounds for park purposes. Address Mayor Overholser.

Okla., Pryor—(Road, Culverts).—\$30,000 Chouteau Township, Mayes County, bonds are voted. J. B. Dunham is Chrmn. Board County Commrs.

Okla., Sallisaw—(Road).—Election is to be held in McKey Township, Sequoyah County, to vote on \$25,000 of bonds. Address County Commrs.

Okla., Sapulpa—(School).—\$100,000 of high-school bonds are voted. R. E. Jenness is Clerk.

Okla., Stratford—(Water, Light).—\$4000 water-works and \$2000 electric-light bonds are voted. Address The Mayor.

Okla., Tulsa—(Park).—Election is soon to be held, it is reported, to vote on \$200,000 of bonds. Address The Mayor.

Okla., Tishomingo—(Road).—\$30,000 Yabbs and \$30,000 Graner Township, Johnston County, 6 per cent. 1-2-year bonds have been purchased at 1.02 by E. J. and J. W. Pearsal, Oklahoma City, subject to election May 12, 1917.

S. C., Anderson—(School).—\$80,000 of 5 per cent. 40-year \$1000 denomination bonds Anderson School Dist. No. 17 have been purchased at \$700 premium by Miss Varina D. Brown of Anderson.

S. C., Easley—(Sewer, Street, Sidewalk).—Bids will be received until 4 P. M. May 10 for \$20,000 sewer, \$25,000 street and sidewalk paving 5 per cent. 20-40-year \$1000 denomination bonds, dated May 1, 1917, and maturing May 1, 1937. Address Commrs. of Public Works, W. M. Hagood, Chrmn.; P. M. Taylor, Clk. Further particulars will be found in the advertising columns.

S. C., Gaffney—(Refunding).—Election held April 26 to vote on \$12,000 of 5 per cent. town hall and electric-light plant extension bonds to refund an equal amount bearing 6 per cent. J. Q. Little is Mayor.

S. C., Jefferson—(Water, Light, Sewer).—Authority has been granted by Legislature to issue \$15,000 of bonds. Address The Mayor.

Tenn., Chattanooga—(Paving).—\$3344.40 of 6 per cent. bonds have been purchased at par and \$9.20 premium by the First National Bank, Cleveland, Ohio.

Tenn., Dresden.—\$5000 of 6 per cent. bonds are being offered for sale. Address The Mayor.

Tenn., Henderson—(Funding).—Bids will be received until noon May 11 by W. H. Baldy, Mayor, for \$15,000 of 6 per cent. 1-20-year bonds, dated Jan. 1, 1917; denomination \$750.

Tenn., Huntsville—(Road).—\$300,000 of 6 per cent. Scott County bonds have been purchased at \$3800 premium by the Mercantile Union Trust Co., Jackson, Tenn.

Tenn., Knoxville—(Street, Hospital).—Ordinance is to be introduced in the City Council authorizing issue of \$600,000 of street and \$200,000 hospital bonds. John E. McMillian is Mayor.

Tenn., Knoxville—(Auditorium, Park,

School).—Election is to be held July 5 to vote on \$150,000 auditorium, \$50,000 park and playground and \$250,000 of high-school building bonds. John E. McMillian is Mayor.

Tenn., Maynardville—(Warrants).—On May 21 Union County will sell \$50,000 of interest-bearing warrants. Geo. N. Taylor is County Judge.

Tenn., Memphis—(Street, Subway, etc.).—Bids will be received until May 22 for \$375,000 of 4½-4% or 5 per cent. funding and improvement bonds. C. C. Pashby is City Clerk.

Tenn., Nashville—(School).—Bids will be received until noon May 10 for \$625,000 of 4 per cent. 40-year \$1000 denomination bonds State of Tennessee School Bonds, dated July 1, 1917. Tom C. Rye is Governor. J. B. Thomason, Comptroller.

Tenn., Springfield—(Road).—Election will probably be called in Robertson County to vote on \$150,000 of road-improvement bonds. Address County Commrs.

Tex., Albany—(Road).—Bids will be opened May 14 for \$100,000 of 5 per cent. 40-year \$1000 denomination bonds Road Dist. No. 2, Shackelford County, dated April 10, 1917, and maturing April 10, 1937. J. A. King is County Judge.

Tex., Austin.—Bonds approved by Atty.-Gen.: \$250,000 Cherokee County Road Dist. No. 1; \$40,000 Amarillo paving, series A; \$10,000 Amarillo paving; \$3000 Grayson County common school Dist. No. 121; \$30,000 5 per cent. Clarksville Independent School Dist.; \$20,500 of 5 per cent. bonds Collin County Levee Improvement Dist. No. 1; \$50,000 schoolhouse; \$30,000 city hall and fire station 5 per cent. 20-40-year Brownwood; \$50,000 of 5 per cent. Red River County Levee Improvement Dist. No. 1.

Tex., Arlington—(School).—\$10,000 of 5 per cent. 40-year bonds are voted. C. B. Berry is Secy. School Board.

Tex., Belton—(School).—Election is to be held in Willow Spring School Dist., Bell County, to vote on \$1500 of bonds. Address Board of Trustees.

Tex., Calvert—(School).—Election was held April 25 to vote on \$60,000 of bonds. Address School Board.

Tex., Cleburne—(School).—Bids will be received until 2 P. M. April 28 for \$250,000 of 5 per cent. bonds.

Tex., Corsicana—(Water).—Election is to be held April 30 to vote on \$50,000 of bonds. Address The Mayor.

Tex., Plainview—(Paving).—\$40,000 of 5 per cent. bonds have been purchased at par, accrued interest and \$247 premium by the Hanchett Bond Co., Chicago.

Tex., Port Arthur—(School).—Bids will be received until 2 P. M. May 3 for \$200,000 of 5 per cent. 20-40-year school bonds. Thomas W. Huguen is Secy. School Board.

Tex., Galveston—(Refunding).—\$1,693,000 of 20-year bonds are to be issued to refund outstanding limited debt, general indebtedness and water-works and street improvement bonds aggregating that amount. The bonds, purchased by Bolger, Mosser & Willaman of Chicago, have been accepted by the United States as security on postal savings deposits. The deal was conditioned upon such acceptance.

Tex., Kerrville—(Road, Bridge).—Bids will be opened May 14 (subject to previous sale) for \$15,000 of 5 per cent. 10-20-year \$500 denomination bonds, Road Dist. No. 2, dated April 10, 1917. Address James Crotty.

Tex., Quitman—(Road).—Bids will be received until Apr. 30 by R. E. Bozeman, Judge of Wood County, for \$150,000 of bonds.

Tex., San Antonio—(School).—\$15,000 of bonds Common School Dist. No. 23, Bexar County, have been voted. Address County School Trustees.

Tex., Sherman—(Park, Auditorium).—\$50,000 of 5 per cent. park site purchase and municipal auditorium building bonds have been purchased at 105.04 and interest by Tillotson & Wolcott Co., Cleveland.

Tex., Waco—(Street, Sewer, Fire).—\$85,000 of 5 per cent. 30-year \$1000 denomination bonds, dated April 1, 1917, and maturing 1947, have been sold at a premium. John C. Davis is City Secy.

Tex., Weatherford—(Road).—\$25,000 of Precinct No. 1, Parker County, bonds defeated.

Tex., Wichita Falls—(School).—Election is to be held in Wichita County April 28 to vote on \$18,000 of bonds for high school at Burk Burnett. Clara Dist. has also decided to hold election to vote on bonds. Address County Commrs.

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DAVID REED, Manager

(Continued on Page 78.)

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WE sell crude commercial creosote—millions of gallons of it, but we only recommend it for use in the Pressure Process.

The OPEN-TANK SYSTEM and the BRUSH METHOD require a *refined* coal-tar creosote. The physical characteristics of the commercial creosotes make them unfit for practical use in these treatments.

Refinement consists of chilling the crude creosotes, solidifying the naphthalene and removing it, draining off the remaining liquid, and distilling it to rigid specifications drawn to meet the special requirements of the Brush Method and Open-Tank System; obtaining an oil liquid at low temperature, penetrating the wood easily, of high preservative value, and positively permanent—*i. e.*, practically non-volatile.

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ing to standard specifications, and *not* a proprietary product or a patented compound.

The National Lumber Manufacturers' Association, in their Farm Bulletin No. 3, state the following:

"Proprietary or patented preservatives consisting of chemical solutions or mixtures of various kinds have been extensively sold. Some of them, particularly those containing creosote, have a high value as preservatives. Others are practically worthless despite

extravagant claims. The high cost is the worst drawback to patented preservatives of merit. They are rarely superior to good creosote and often not as good, and their cost is often out of proportion to their relative value."

The United States Department of Agriculture, in Bulletin No. 744, says:

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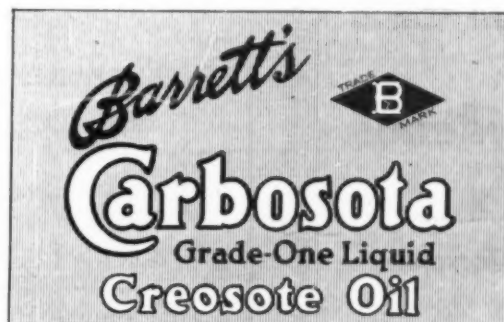
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(Courtesy U. S. Forest Service.)

Va., Harrisonburg—(Highway).—Bids will be received until noon May 14 for \$10,000 of 5 per cent. 10-20-year Rockingham County \$100 denomination bonds. J. F. Blackburn is Clerk Board of Supvrs.

Va., Portsmouth—(Fire Equipment).—\$32,000 of fire apparatus bonds have been purchased by Well, Roth & Co., Cincinnati, O.

Va., Shenandoah—(Hydro-electric Power).—Election will be held May 8 to vote on \$30,000 of 6 per cent. 20-30-year \$1000 denomination bonds, which can be bought at private sale. W. T. Koontz is Chmn. Water and Light Com.

Va., Spotsylvania—(Road).—\$15,000 of bonds Livingston Dist., Spotsylvania County, have been purchased at a premium by Spotsylvania County and Fredericksburg parties. Address County Commrs.

W. Va., Ceredo—(School).—\$60,000 of 6 per cent. 10-40-year \$500 denomination bonds Ceredo and Kenova Dist., Wayne County, defeated.

W. Va., Charleston—(Road).—Election ordered April 24 to vote on bonds Elk Dist., Kanawha County, called off. L. C. Massey is Clerk.

W. Va., Fairmont—(Road).—\$1,175,000 of bonds for three districts in Marion County have been purchased at par and accrued interest by the State of West Virginia.

Va., Wytheville—(School, Road).—Election is to be held in Wythe Dist., Wythe County,

May 19, to vote on \$50,000 road and \$30,000 school improvement bonds. Clarence W. Robinson is Judge of Circuit Court.

W. Va., Moundsville—(School).—Election is to be held May 15 to vote on \$168,000 of 5 per cent. \$500 denomination bonds Moundsville Independent School Dist., dated June 1, 1918, and maturing June 1, 1919 to 1945, inclusive. J. W. Garvin is Pres. Board of Education of Independent School Dist. of Moundsville.

FINANCIAL NOTES

The annual convention of the Texas Bankers' Association this year is to be held at El Paso, Tex., May 15, 16 and 17.

The Investment Bankers' Association is to hold its annual convention this year at Baltimore on Oct. 1, 2, 3 and 4.

It is announced at Washington that the first offering of the war emergency securities, viz., \$200,000,000 of 3 per cent. Treasury certificates, which will run for two months, or until June 30, has been heavily over-subscribed.

The National Bank of Commerce, Baltimore, is one of the first, if not the very first, of banks in the United States to employ girls in consequence of the war. Several of its clerks were called to arms because they were in the National Guard, and since their departure the bank has taken three girls on its staff of employees.

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" Wilmington.....	10.42 1/2	" New London.....	11.34 1/2
" West Philadelphia.....	11.29 1/2	" New Haven.....	12.50 1/2
" North Philadelphia.....	11.38 1/2	Ar. New York (Penna. Sta.)	3.10 1/2
" Trenton.....	12.18 1/2	Lv. New York (Penna. Sta.)	3.20 1/2
" Newark.....	1.28 1/2	Ar. Newark.....	3.49 1/2
Ar. New York (Penna. Sta.)	1.49 1/2	" Trenton.....	4.42 1/2
Lv. New York (Penna. Sta.)	1.55 1/2	" North Philadelphia.....	5.18 1/2
Ar. New Haven.....	4.09 1/2	" West Philadelphia.....	5.27 1/2
" New London.....	5.24 1/2	" Wilmington.....	6.05 1/2
" Providence.....	7.11 1/2	" Baltimore.....	7.30 1/2
" Boston.....	8.20 1/2	" Washington.....	8.30 1/2

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The Federal Express through night train from Washington to Boston will continue on its present through schedule, carrying passengers for New England only.

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INDUSTRIAL NEWS OF INTEREST

Machine Tools Sales Office.

H. P. Eilers, formerly with Manning, Maxwell & Moore, Inc., has opened an office in the Singer Bldg., New York City, where he will handle machine tools for domestic and export trade.

Large Contract for Tile.

The Southern Tile Co. of New Orleans and Mobile has been awarded the contract to furnish and install the tiling in two of the largest fraternal order buildings ever erected in New Orleans, viz.: the Masonic Temple and the Elks Club; the latter costing \$228,000.

To Pave Streets With "Bitoslag."

Announcement is made that the Williston Construction Co. of Chicago has been awarded contract to pave with "Bitoslag" 23,000 square yards of street in the subdivision of the Harter Realty Co. at South Bend, Ind., and P. C. Roing has been awarded a contract to lay 30,000 yards of Bitoslag in Mahanoy City, Pa.

To Exclude Cinders, Sparks and Dust.

An interesting device, Kurfees Cinder, Spark and Dust Deflector, is described by R. H. Wright of Durham, N. C., who controls it, as follows: "This deflector is simple, inexpensive and most effective in keeping cinders, dust and sparks from getting on the seats of cars when the windows are up. It can be quickly reversed when the car starts on its return journey and in winter, when not required, it can in a few seconds

be folded flat against the car so as to offer no resistance to its momentum. The railway companies, as well as the traveling public, will appreciate it."

Established New District Office.

The National Transit Pump & Machine Co. of Oil City, Pa., has recently established a new Southeastern District Office at Charlotte, N. C. The company manufactures gas engines, oil engines, steam pumps, high-duty pumping machinery, pipe fittings and tools, individual well pumping rigs, automatic feed pumps and receivers, apparatus for the foam system of fire fighting, foam pumps, etc.

A Business Incorporated.

The August Mletz Corporation, 128-138 Mott St. and 87-89 Elizabeth St., New York, announces that the business of August Mletz, Emma C. Rueff, Proprietors, has been sold and transferred to it, with officers as follows: Emma C. Rueff, Pres.; Emil Rueff, V.-P. and Treas.; Otto v. Schrenk, Secy., and Louis C. Eltzen, Gen. Mgr. The business will be continued at the same address under the personal management of Mr. Eltzen.

Has Occupied New Quarters.

The Southern Construction & Supply Co. has recently occupied its new building 116-118 Central Ave., Atlanta, Ga., having moved there from its old location at 13 South Forsyth St. This is one of the largest supply houses in that section carrying a complete line of supplies for ice-making and

refrigerating plants. It is also the exclusive agent in the Southeastern part of the United States for the ice-making refrigerating machinery made by the York Manufacturing Co. of York, Pa., the demand for which is steadily increasing.

Ice and Refrigerating Machinery.

The York Manufacturing Co., York, Pa., reports during the last month 88 installations of its refrigerating and ice-making machinery and kindred products, including 28 in the South, among which are the following: South Atlantic Packing and Provision Co., Savannah, Ga.; Pontotoc Cotton Oil Co., Pontotoc, Miss.; Smith County Electric Co., Carthage, Tenn.; Arctic Ice & Coal Co., Greensboro, N. C.; Inland Navigation Co., New Orleans, La.; Border City Ice & Cold Storage Co., Fort Smith, Ark.; Crystal Ice & Cold Storage Co., Temple, Tex.; Chero-Cola Bottling Co., Birmingham, Ala.; W. F. Coachman, Jacksonville, Fla.; Standard Brewing Co., and Cloverland Dairy Co., New Orleans; Parlett & Parlett, Annapolis, Md., and many others.

Central Foundry Co. Reports Busy Year.

The report of the Central Foundry Co. for 1916 observes that while there was an active demand for all its products during the year, "reference should be particularly made to the particularly satisfactory demand for Universal Pipe, which exceeded the company's capacity, and is a gratifying indication of the position that this special product of the company occupies among users of gas and water pipe." It is further stated that the outlook is excellent; both the Central Foundry Co. and the Central Iron & Coal Co. have substantial orders at very satisfactory prices, besides available capacity to be disposed of from time to time in the constantly advancing market. The company earned during the year, after all charges and deductions, \$675,710.24. Its total assets are \$11,994,855.49.

Folding Seat for Army Motor Trucks.

Captain E. O. Saunders, Fort Sam Houston, Tex., has invented a folding seat designed primarily for use on army motor trucks engaged in transporting troops on either the roads or in the fields when rapidity of movement is of strategical and tactical importance. A circular says that it has been tested in the Southern Department and has met with the approval of the Commanding General, the Chief Quartermaster and other officials who have seen it in use. When not in use the seat is folded and lies flat on the bottom of the truck bed; in use it permits 40 or more men to be carried comfortably and safely on a three-ton truck with their full field equipment. Patent has been applied for. Captain Saunders desires to make arrangements with someone for having the seat manufactured and sold.

Ransome "Bantam" Paver.

The Ransome Concrete Machinery Co., New York City, in addition to its large Good Roads Paver, has produced a new mixer, the Ransome Bantam Paver. This is claimed, cannot be excelled for handling both small and large paving jobs. It is especially adapted to alleys, long driveways and small road jobs; it is a one-bag batch mixer, and is equipped with an open-end pivot hopper, with dumping bar for quick charge. The hoist sheaves apply the maximum speed as the hopper nears the vertical position and the hoist has an automatic knock-out; the automatic water-measuring tank also facilitates rapid and efficient operation. The distributing chute is 10 feet and the swing is practically half a circle. A steep slope can be had when desired; even spread of concrete is assured. There is a six-horse-power engine and self traction.

TRADE LITERATURE**Protective Lighting for Industries.**

The National Lamp Works of the General Electric Co., Nela Park, Cleveland, Ohio, has just prepared a bulletin "Protective Lighting for Industrial Plants." It is published in response to a large number of recent requests for information as to the best use of lighting as a precaution against damage to such plants, and the company says it hopes, by means of Bulletin No. 30, to prevent the mispending of thousands of dollars through incomplete knowledge of the subject of protective illumination. The bulletin is illustrated with pictures and diagrams showing how the lighting may be successfully applied in almost any particular case and suggestions are interspersed concerning the kind of lamps and reflectors which should be employed.

Classified Opportunities

MINERAL AND TIMBER LANDS WATER POWERS MISCELLANEOUS PROPERTIES

FOR SALE—700 acres on railroad adjoining town of 5000; textile mill site and town development or subdivision property; electric power; extensive pike frontage. Address Donk Aydelott, Tullahoma, Tenn.

FOR SALE? Farm, timber land, mineral property or any other? We can help you get in touch with possible purchasers by an advertisement in these columns. For rates see head of this department.

VALUABLE COPPER and other mineral and timber lands at low prices. Write us. McClellan & Henry, Eminence, Mo.

FOR SALE—4 choice water-power sites near railway, with land at station for plants. Also mineral and timber. Address E. Carter, Lovington, Va.

FELDSPAR If you have or want them, and **KAOLIN**. S. P. Sherman, 52 Broadway, New York City.

GRAPHITE

GRAPHITE FOR SALE—This company owns and controls valuable deposits of crystalline flake graphite, fully developed and tested, on which guaranteed detailed reports may be had on application. It is also desired to interest capital in the erection of modern mills on the property. Address Expert Prospecting and Development Company, Jefferson County Bank Bldg., Birmingham, Alabama, Geo. H. Clark, General Manager.

BORAX

BORAX property in Chile, S. A., for sale. Conservative estimate shows profit of \$25,000,000. Box 152, Waxahachie, Texas.

GRANITE QUARRY

FOR SALE on account of other business. Will sell 10 acres of granite on Ga. R. R. This is one of the best located granite quarries in this section. For further information and price address Box 114, Lithonia, Ga.

MANGANESE

MANGANESE ORE PROPERTY, consisting of 200 acres, thoroughly prospected. Many bore holes prove large vein and vast quantity of ore. The property is now being worked in a crude way and the operator is making large profits. This property is close to railroad and justifies scientific development. The owner of this property authorizes us for a short while to offer it at a very low figure. P. A. Green & Co., 713 Mutual Bldg., Richmond, Va.

IRON AND MANGANESE DEPOSITS

FOR SALE — **MANGANESE**.—About 800 acres manganese mineral rights in Frederick Co., Va., about 10 miles from R. R. station. Good roads. High-grade manganese ore now being mined and shipped. Property easily investigated. Chas. F. Nelson, 1945 Calvert St. N. W., Washington, D. C.

IRON ORE

FOR SALE—**BROWN IRON ORE**.—A rich deposit of several million tons of brown iron ore, well located between the thriving iron centers of Birmingham, Anniston, Gadsden and Ironaton. This is a property developed only enough to demonstrate and not worked out, testing from 43% to 54% metallic iron. Write for description by a well-known expert. A. A. Janney, Montgomery, Ala.

COAL LANDS

FOR SALE—6000 acres W. Va. coal. Two railroads and slackwater; 2 merchantable seams; numerous openings at outcrop; solid block; economical operation. Price low. Write today. R. M. Parrish, Grafton, W. Va.

ARKANSAS COAL LANDS.—800 acres; 4-ft. vein, outcrops, ½ mi. from R. R. This frontage controls 2200 acres that can be bought when needed. P. H. Thompson, Fort Smith, Ark.

FOR LEASE—Hazard, Ky., coal field. 2400 acres for lease, all or part. Address Edgerton Coal Corporation, Abingdon, Va.

COAL LANDS AND MINES

Mine Ready for Operation With 24,000 Acres Good **COAL LAND FOR SALE** Cheap to Close an Estate. Power plant, mining machines, cars, etc., fourteen miles of standard and narrow-gauge railroad, connecting with the Southern Railway at Lim Rock, Ala., sixty-five miles westerly from Chattanooga; four locomotives, cars, eighty dwellings and large commissary. Good valuable hardwood timber, with two good sawmills; most of the land on Cumberland Plateau suitable for agriculture when cleared; coal known as Belmont Block, very hard, high in volatile matter, excellent for domestic use. Low freight rates and best of markets. For full particulars, price and terms address P. D. Pierce, Bridgeport, Ala.

RATES AND CONDITIONS

Rate 25 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 23c. per line; 300 lines, 21c. per line; 500 lines or more, 20c. per line.

COAL LANDS AND MINES

COAL PROPERTY for sale on easy terms and at a price which will insure splendid returns. Coal deposits are being exhausted at a rapid rate and are increasing in value. We have visited and are familiar with every coal field of the United States, with the exception of Oregon, Washington and Alaska, and can offer you a list of well-selected properties, going mines or acreage. W. E. Hamilton & Co., 309 Schultz Building, Columbus, O.

TIMBER LAND

VALUABLE TIMBER TRACT FOR SALE on large navigable river near Wilmington, N. C.; 7500 acres in fee, in one tract, fronting four miles on river. Will cut FIFTY MILLION FEET, mostly pine, balance cypress, poplar and gum. Most of timber on four thousand acres with average haul of one mile to the river. Price attractive. Address Charles N. Riker, Union Trust Building, Washington, D. C.

1700 ACRES VIRGIN TIMBER, eight miles from railroad. Long-leaf pine, extra fine quality; also best grade of white oak. All the land can be utilized as farm or stock ranch. Greatest abundance of water; convenient to schools. Will cut 3000 to 5000 feet per acre. \$15 per acre in fee. Box 176, Heber Springs, Arkansas. Heber Springs Development Company.

FOR \$2 PER ACRE, 160 acres of timber land. Arkansas Investment Company, Leslie, Arkansas.

FOR SALE—600 acres hardwood timber, with large amount chestnut acid wood and chestnut oak bark. W. M. Pratt, Marion, N. C.

TIMBER

TIMBER BARGAIN.—50,000,000 ft. original growth. 60% N. C. pine, 8% cypress, 8% poplar, balance red gum, etc., on Southern Rwy. in South Carolina. Large amount of additional, contiguous, similar stumpage can be bought cheap. For particulars write J. P. Mulherin, Augusta, Ga.

FOR SALE—About three hundred and seventy-five million feet of the highest grade and quality of virgin long-leaf yellow pine. For particulars address H. H. Wefel, Jr., Mobile, Alabama.

FARM AND TIMBER LANDS

WE OWN LARGE TRACTS OF TIMBER LANDS, cut-over lands and colonizing lands. If interested, address H. H. Wefel, Jr., & Co., Mobile, Alabama.

WE HAVE FARMS OF ALL SIZES from 50 acres to 1000 acres in Tidewater Virginia and Eastern N. C., and have prices and terms that will suit. So when you want farms or standing timber, let us know your wants. We can fill your order. Look for us or write us. Southampton Realty Co., Newsums, Va.

CATTLE RANCH

CATTLE RANCH FOR SALE. 67,000 acres improved ranch, stocked with high-grade Hereford cattle, at a bargain. 31,000 acres at \$3.40 per acre. 7,500 acres at \$4.00 per acre. 30,000 acres leased for a term of years. Cattle will be sold at low figure to purchaser of ranch. \$35,000 cash will handle ranch. Address Box 40, Marfa, Tex.

STOCK FARMS

FOR SALE.—Ten thousand acres especially well adapted for a ranch, located South Alabama. If buyer stocks ranch, would require no payment for three or four years. Address H. H. Wefel, Jr., Owner, Mobile, Ala.

FOR SALE—Five-year lease on 8200 acres and 1000 stock cattle. Renfro Bros., Aspermont, Texas.

FOR SALE—AT A BARGAIN.—One of the best stock farms in Middle Georgia; ample space, splendid equipment, fertile valley lands; well fitted up with houses and improvements. Good roads to market within radius of 25 miles; easy railroad facilities. Party with proper capital can secure it for this season's operation. Address at once W. F. CRUSSELL, care Atlanta Constitution, Atlanta, Ga.

FARM AND GRAZING LANDS

WE HAVE FOR SALE 328 farms in Piedmont Virginia and Northern Maryland, ranging in price from \$1000 to \$100,000, many of which are in a high state of cultivation, for general farming, grazing, orcharding and dairying. W. W. Briggs & Son, Orange, Va.

HOMESTEADS AND FARM LANDS

OREGON & CALIFORNIA RAILROAD CO. GRANT LANDS.—Title to same re-vested in United States by Act of Congress dated June 9, 1916. Two million three hundred thousand acres to be opened for settlement and sale. Power site, timber and agricultural lands. Containing some of the best land left in United States. Now is the opportunity time. Large sectional map showing lands and description of soil, climate, rainfall, elevations, etc., postpaid. \$1. Grant Lands Locating Co., Box 610, Portland, Ore.

COUNTRY HOME

FOR SALE OR EXCHANGE. Magnificent modern country home, 10 acres, 15 rooms, gas, electricity, sewerage, fine water supply, 3 bathrooms, hot-water heat, servants' quarters, individual phones, garage, stable, barn, chicken-houses, in first-class condition. Garden, asparagus, strawberry beds, young orchard, all fruits, flower beds, beautiful shade. Overlooking Washington, 30 minutes U. S. Treasury by electric cars, 15 minutes auto, 10 minutes steam road. Price \$30,000; terms if desired. O. B. Zantinger, Washington, D. C.

TOWNSITES

ATTENTION, Townsite Men!—The Midland & Northwestern Rwy. Co., now building, offers one or all of its townsites, located between Midland and Seminole, for sale. Address T. J. O'Donnell, President, Midland, Texas.

FRUIT, FARM AND TRUCK LANDS

THESE COLUMNS ARE CLOSELY READ BY PEOPLE for information of all kinds about Southern properties of every description. If you have a property of any kind that you want to dispose of, try an advertisement in these columns. Others have to their advantage. For rates see head of department.

ALABAMA

FOR SALE in soft, ideal climate, grand bay view, choice 43-acre tract, \$500. Choice beach lots, \$100. Other cash bargains. J. O. Matson, Point Clear, Ala.

FLORIDA

FOR SALE 6500 ACRES IN FLORIDA. WHOLESALE PRICE. WILL NOT RETAIL. Located on the East Coast, in Volusia county; price \$6.50 per acre; \$1 per acre down, balance \$1 per acre per year, 6 per cent. interest on deferred payments; 8 miles west of New Smyrna, Fla.; on the Orange City branch of the Florida East Coast R. R.; Indian Springs Station is only ¼ of a mile from it; 2500 acres are "prairie land." Has an elevation of about 22½ to 41 feet above the tidewater; top soil is a black sandy loam, underlaid with clay. Would make an ideal stock range. There are forty families farming in the adjoining sections; some have raised 45 to 50 bushels of corn to the acre, 50 barrels of Irish potatoes, and all kinds of garden truck, such as lettuce, beans, peas, Bermuda onions, besides good crops of rice, oats and grasses for feed. Title good. Owned in fee-simple, without incumbrance. Other information will be furnished upon request by E. C. Howe, 747 Hartford Bldg., Chicago, Ill.

FLORIDA.—Do you intend visiting the land of health and sunshine this winter? If so, write M. J. Hoening, Prop. Hotel Palm, West Palm Beach, Fla., for instructive booklet.

FOR A SAFE and permanent investment Florida lands and values should interest you. Manatee County is the best location, and is destined to become one of the most progressive settlements in the State and a very profitable investment. Florida farms in Manatee County are below frost belt; have rich soil, with 365 producing days. Easy terms. J. Henry Strohmeier, Maryland Casualty Tower Building, Baltimore, Md., and Sarasota, Florida.

FOR SALE—Twenty acres; 15 in orange and grapefruit grove; one mile from city and Gulf, on brick road. B. C. Bass, Dunedin, Fla.

FLORIDA

FREE. "THE WINTER GARDEN OF AMERICA," to Fruit Growers, Truckers, General Farmers, Cattle, Hog and Poultry Raisers. Folks interested in the great Indian River Section of Florida, write Indian River Farms Company, Suite 0, 609 Putnam Bldg., Davenport, Iowa.

GEORGIA

2700 ACRES of fine dairy or cattle land 9 miles from Savannah can be bought at \$20 per acre. A bargain. Skeffington & White, Savannah, Ga.

LOUISIANA

FOR SALE—7885-acre plantation at a sacrifice to close an estate. Very rich delta land in East Louisiana, 1½ miles of railway town; 3500 acres in cultivation, with plenty of houses, balance in virgin hardwood timber. Other information and price to responsible parties. Hudson Real Estate Co., Cabot, Ark.

MARYLAND

TO CLOSE AN ESTATE—One of the most productive farms in Howard Co.; a dividend payer; about 340 acres; on State road; 3 miles from Ellicott City; customary commission to brokers. R. G. MacGill, 110 Commerce St. Baltimore, Md.

NORTH CAROLINA

FOR SALE—475-acre farm on Yadkin River, ¼ mile from railroad station; 100 acres exceptionally fine hardwood forest; 250 acres excellent pine timber; 100 acres in good state of cultivation, open and timbered land, lies well for cultivation; 5-room house, with barns, etc.; 4-room tenant-house; 4 tobacco barns. A bargain at \$60 per acre. J. B. Douthitt, Clemmons, N. C.

TEXAS

MONEY can't be used to better advantage now than investing it in South Texas land. There is no speculation in it. You will know so a year from now. I give you here a few good buys: 2333 acres of fine agricultural land, located in a proven oil district; price \$10 per acre; terms. 1000 acres improved stock farm between Austin and San Antonio; 200 acres tillable land; one mile river front; across the river is constructed a solid dam of rock masonry, giving 35 to 40 horsepower, which operates a large turbine wheel, a gin, press and grist mill, and sufficient water to irrigate at least 50 or 75 acres; a large lake is created by the dam, furnishing good fishing. The community is a good one. Nature has put its charm to this spot, and could be developed and made a real paradise for man on earth. The price placed on this desirable property—only \$16,500—is very low. This is the biggest bargain in Texas. Write me your wishes; state in your first letter what size tract you want, agricultural or ranch land; what capital you have to invest. I have improved farms, small and large, colonization tracts from 2000 to 25,000 acres, ranches of 5000 to 30,000 acres, at prices from \$4.50 to \$20 per acre. Suitable terms given. Act now. Write B. P. Hintze, 214 East 6th Street, Austin, Texas.

VIRGINIA

SPLENDID 400-ACRE Virginia farm; beautiful 10-room dwelling in large, shady lawn. Convenient to town, on public road. Will exchange for Chicago property. Pollard & Bagby, Inc., Richmond, Va.

APPLE ORCHARD

4500 apple trees, full bearing, average age nine years; expected to produce 3000 barrels this year; located in apple belt Augusta county, Virginia; all necessary buildings and lime sulphur plant. Write us for full particulars. Price \$35,000. No better proposition in the State. J. A. Connelly & Co., No. 34 North 7th St., Richmond, Virginia.

SHELANDOAH VALLEY OF VIRGINIA

Where Blue Grass and Alfalfa Grow. In the heart of the Apple Belt. Delightful climate. Fertile Soil. Write John M. Londeree, Staunton, Va.

LARGE STOCK AND DAIRY FARM, 700 acres; 7 miles from Washington. Unusually attractive proposition.

Potomac River properties, large and small. Near to Washington estates and farms; also country villas, some of which are for rent, furnished or unfurnished, for the summer season. F. L. Slaymaker, Alexandria, Va.

ATTORNEYS

RAYMOND M. HUDSON, Washington, D. C. Attorney. Practicing before U. S. Supreme Court, U. S. Court of Claims, D. C. Court of Appeals, D. C. Supreme Court, Va. and Md. Courts, Executive Departments, Congressional Committees, Federal Reserve Board, Federal Trade Commission, Interstate Commerce Commission. Cable "Rayhud."

Classified Opportunities

ATTORNEYS

PERSONAL ATTENTION to all legal matters in the Southeastern States. Prompt service in handling collections through bonded attorneys. Associate Corporate Attorneys, Gadsden, Ala.

CAPITAL WANTED

CAPITAL WANTED for financing coconut plantation in Central America. Box 152, Waxahatchie, Texas.

INCORPORATING COMPANIES

CORPORATIONS ORGANIZED under the broad, liberal and substantial laws of Delaware. Minimum original and annual expense. Estimates cheerfully furnished. Write for our revised DIGEST of the law. CORPORATION COMPANY OF DELAWARE, Equitable Building, Wilmington, Del.

AUTOMOBILE TRUCKS

WE ARE SELLING lots of Republic Trucks to farmer-merchants situated off the railroads, thereby releasing a great deal of mule power for farming purposes. Every mule taken from the plow now will lessen your production of valuable foodstuffs, lessen your value to yourself and your nation. An inquiry from you will bring full information. E. A. Jenkins, Republic Trucks exclusively, 705 Gervais St., Columbia, S. C.

BUSINESS OPPORTUNITIES

WANTED—Partner with from six to eight thousand to invest with like amount in a lucrative manufacturing business. For particulars address Box 304, Anniston, Ala.

WHEN interested in buying or selling real attractive investment propositions, write Investment Service Dept., Roger A. Jennings & Co., Greensboro, N. C.

DOUBLE BAND MILL in North Carolina. Up-to-date equipment. Ample standing timber behind it. Making money. Good reason for selling. Green & Redd, Richmond, Va.

WE WANT to get in touch with responsible real estate, insurance, bankers, brokers, financial and investment agents who will aid us in handling our clients quickly and intelligently in your section. Write us your facilities for handling business. Help us in perfecting our service system and you help yourself. Roger A. Jennings & Co., Financial and Investment Agents, Greensboro, N. C.

INDIVIDUAL wishes to incorporate factory for additional capital from \$500 to \$15,000. The sale of output is guaranteed. Location, Kentucky, in a thriving city. Active manager with a thorough knowledge of oak and lumber to take charge. Address No. 3041, care Manufacturers Record, Balto., Md.

USE our Investment Service Dept. for handling your business in the Southern and Eastern States. Reliable personal representation affords you confidential and efficient service. Roger A. Jennings & Co., Financial and Investment Agents, Greensboro, N. C.

WOULD INVEST several hundred dollars along with a position. Have experience and business training. Baxter Genoble, McCallville, S. C.

FOR SALE—2-story brick building, 50x110, Cordell, Okla.; rented \$100 monthly. Price \$12,000. Tom Renfro, Aspermont, Tex.

AN UP-TO-DATE box factory with modern machinery, doing a thriving, profitable business, with 2 years' of good orders on hand in a Virginia gateway; good territory for lumber and labor. NEEDS A PRACTICAL MAN. Will sell outright, but prefer to sell and co-operate. Can furnish plenty of work. Address No. 3081, care Manufacturers Record.

ACCOUNT OF HEALTH, treasurer of well financed and successful paving company will sell holdings—\$15,000—par value stock. General offices, Texas. \$500,000 in business under contract. Purchaser must command at least \$15,000 and be acceptable to organization. Address No. 3070, care Manufacturers Record.

LAUNCH

36-FT. CRUISING LAUNCH, 15 H. P. engine with reverse gear; complete equipment; electric lights, air whistle, fresh water, toilet, cushions, curtains, etc. F. B. Eisenbrandt, Baltimore, Md.

SUMMER CAMP FOR GIRLS

CAMP JUNALUSKA.—Send your daughter there this summer—Lake Junaluska, N. C. Write for booklet. Miss Ethel McCoy, 169 Charlotte St., Asheville, N. C.

BUILDINGS—STEEL PORTABLE

"PRUDENTIAL" STEEL BUILDINGS for all purposes; portable one-story construction; workshops, toolhouses, storage, garages, bunkhouses, etc. Write for Catalog A. C. D. Pruden Company, Baltimore, Md.

PATENT ATTORNEYS

PATENTS.—Write for how to obtain a patent, list of patent buyers, and inventions wanted. \$1,000,000 in prizes offered for inventions. Send sketch for free opinion as to patentability. Our four books sent free upon request. Patents advertised free. We assist inventors to sell their inventions. Victor J. Evans Co., Patent Attorneys, 712 Ninth St., Washington, D. C.

HIGH-VALUE PATENTS. Patents that fully protect. Patents that Pay Largest Financial Returns are the kind we obtain. References. SUCCESSFUL INVENTORS and WELL-KNOWN MANUFACTURERS. Send 8 cents for new book of extraordinary interest and value to inventors. R. S. & A. B. Lacey, 93 Barrister Building, Washington, D. C. Established 1869.

EUGENE C. BROWN, ENGINEER AND PATENT LAWYER, 734 Eighth St. N. W., Washington, D. C. Graduate Engineer Lehigh University; Member Bar U. S. Supreme Court; Former Examiner U. S. Patent Office. PATENTS AND TRADEMARKS. Inventions considered from engineering and legal standpoints. Infringements and extent of patent monopoly investigated for manufacturers. Glad to answer any inquiries.

PATENTS—TRADE-MARKS.—Highest professional service. I personally examine the Patent Office records in regard to and personally prepare and prosecute every application filed through my office. Highest references. Booklet, "The Truth About Patents," and honest advice free. J. R. Kelly, Patent Attorney, 750 Woodward Bldg., Washington, D. C.

INVENTIONS—PATENTING AND PROMOTING.—A book containing practical advice and directions for inventors and manufacturers. Book, suggestions and advice free. Lancaster & Allwine, Registered Attorneys, 265 Ouray Bldg., Washington, D. C.

PATENTS THAT PROTECT AND PAY. Advice and books free. Highest references. Best results. Promptness assured. Trade Marks registered. Watson E. Coleman, Patent Lawyer, 624 F St., Washington, D. C.

PATENT YOUR IDEAS.—\$9000 offered for certain inventions; book, "How to Obtain a Patent," and "What to Invent," sent free upon request; send rough sketch for free report as to patentability. We advertise your patent for sale at our expense. Chandler & Chandler, Patent Attorneys, 978 F St., Washington, D. C.

POSTAL will bring free booklet telling all about patents and their cost. Shepherd & Campbell, Patent and Trade-Mark Attorneys, 732 8th St., Washington, D. C.

Patents secured or fee returned. Actual search and report free. Send sketch or model. 1917 Edition, 96-page patent book free. Personal and prompt service. My patent sales service gets full value for my clients. George P. Kimmel, 288 Barrister Bldg., Washington, D. C.

PATENTS AND TRADEMARKS. Procured by a former Examining Official of the U. S. Patent Office. NORMAN T. WHITAKER, Attorney-at-Law, Mechanical Engineer, 31 Legal Bldg., Washington, D. C. (Opposite Patent Office.) Inquiries Invited.

LOCATION WANTED FOR NEWSPAPER

WANT to hear of good town which wants a live daily or weekly paper; might operate trade journal or house organ. Address No. 3083, care Manufacturers Record, Balto., Md.

INDUSTRIES WANTED

PAPER MILL

WANTED: PAPER MILL AT ATHENS, TENN. In the midst of unlimited supply of poplar, lynn, hemlock and yellow pine, all within a radius of 50 miles of Athens, reached by 150 miles of railroad already in operation and 150 miles more railroad to be built.

Lowest possible operating expense; plenty of water; cheap electric power; plenty of labor at low cost; beautiful location. Full and detailed information upon application. Athens Board of Trade.

FOUNDRY AND MACHINE SHOP

FOR SALE—Foundry and machine shop; main foundry building, 18x30 ft., fitted up with traveling cranes and everything necessary in an up-to-date foundry; 500-ft. railroad siding. For further information apply to J. H. Gill, Raleigh, N. C.

INDUSTRIES WANTED

MISCELLANEOUS

CARLISLE, PA., wants your factory. Free sites suiting your requirements on the Pennsylvania and Philadelphia & Reading railroads; Baltimore freight classification; electric current for power purposes 1-10 cents per K. W. H.; extremely liberal financial accommodations; adequate supply of homes for workmen from \$6 to \$8 per month. Chamber of Commerce in affiliation with Pennsylvania State Bureau of Employment; educational facilities beyond the average city of 10,000 inhabitants. Correspondence invited. Chamber of Commerce, Carlisle, Pennsylvania.

OPPORTUNITY FOR INVESTMENT. High Point, N. C., offers investors unlimited opportunities. Raw material, cheap power, mixed-car shipments, adequate labor. Since October a new factory every two weeks; grand total 190. Write Industrial Department, Box 42.

FACTORY SITES

BALTIMORE FACTORY AND TERMINAL SITES.—Statement of Asa G. Candler, President The Coca-Cola Co.: "Investigation convinced us that Baltimore is not only the commercial metropolis for Southern trade, but that it affords shipping opportunities both by water and rail for domestic and foreign traffic superior to any of the great cities in any section of the United States." Locate in Baltimore and derive these advantages. We can provide accommodations to meet your requirements.

"OUR MOTTO": FACTORY AND TERMINAL SITES IN BALTIMORE. Wm. Marten & Co., Ninth Floor, Lexington St. Bldg., Balto., Md.

AT CHARLOTTE, N. C., unusual manufacturing site for sale; 400 acres in one body, of which 75 are in city limits. Large stream through property and a railroad on boundary. Electric power unlimited and cheap. Labor abundant. Address Dr. P. B. Barringer, Charlottesville, Va.

FOR SALE at a bargain, large plot of land situated on railroad and within city limits. It is an ideal location for a factory or lumber yard. For further information apply to C. H. Ferrell & Co., 106 West Plume St., Norfolk, Va.

NORFOLK, VA., industrial sites, convenient to city. Deep water and rail connections. Advantages unsurpassed; worth investigating. W. J. Luke & Co., 193 Berkley Ave., Norfolk, Va.

INDUSTRIAL PLANTS FOR SALE

FOUNDRY AND MACHINE SHOP

FOR SALE—A foundry and machine shop property, doing a good mine and mill supply business with fine opportunity to enlarge. Located at the terminal of four divisions of the Baltimore & Ohio Railroad Co. in central West Virginia. Address Postoffice Box No. 455, Grafton, W. Va.

WELL-ESTABLISHED and best shop in Southern city of 28,000; prosperous; good reasons for selling. Details on request. Address C. S. C. P. O. Box 171, North Birmingham, Ala.

ROLLER FLOUR MILL

FOR SALE—To settle an estate, 30-barrel roller flour mill, with 200-bushel burr corn mill; good water-power; machinery and equipment in good shape; good trade in flour, meal and foodstuffs; excellent neighborhood. About 140 acres good land. G. C. Stone, Hurst, Va.

CONCRETE BLOCK AND BRICK PLANT

FOR SALE. Complete. Practically New Plant. For Manufacture of Silo Blocks. Hollow Building Blocks. Farm Tile and Fancy Red Brick. Good location. Five Kilns. All up-to-date machinery. Terms. Address Equipment Co., 517 Monadnock Bldg., Chicago, Ill.

STONE CRUSHING PLANT

FOR SALE—Complete, well-equipped stone-crushing plant in granite quarry, located on main line prominent railroad; no haul; railroad siding to bins. Quantity of stone unlimited. Splendid market for product. Owners now have contract with railroad for capacity of plant. Good reasons for selling. For further information, terms, etc., apply E. E. Johnson, Culpeper, Va.

MACHINE SHOP

FOR SALE—Machine shop in large Iowa town on Mississippi River. Established 30 years. Centrally located. Excellent trade. Reason for sale, retiring from business. Terms. Address A. P., 517 Monadnock Bldg., Chicago, Ill.

PRINTING PLANT

FOR SALE—In part or as a whole, a well established, modern printing plant (incorporated). Price right and easy terms if desired. P. O. Box 74, Chattanooga, Tenn.

SITUATIONS WANTED

ASSISTANT in welfare or labor department by college graduate qualified by experience to organize and conduct Americanization work. Understands Slavic languages. Now employed. Address No. 3079, care Manufacturers Record, Balto., Md.

PRACTICAL DREDGE MAN open for position; 8 years' experience as captain and superintendent in river and harbor work. Capable of taking charge of job. Address No. 3085, care Manufacturers Record, Balto., Md.

AGENCIES WANTED

MANUFACTURERS' AGENT wants high-class accounts iron, woodworking, textile lines; best bank references. A. Martin, 914 East 9th St., Chattanooga, Tenn.

SALES ENGINEER established in the middle West, acquainted with engineers, architects, contractors and larger manufacturers, can handle additional line of reputable contractors' equipment or building materials. Address No. 3072, care Manufacturers Record.

MEN WANTED

IF ACTUALLY QUALIFIED for salary between \$2500 and \$3500, communicate with undersigned, who will negotiate strictly confidential preliminaries for such positions; executive, administrative, technical, professional; all lines. Not an employment agency; undersigned acts in direct confidential capacity, not jeopardizing present connections. Established 1910. Send name and address only for explanatory details. R. W. Bixby, El Niagara Square, Buffalo, N. Y.

WANTED—By company operating in Western Tennessee, a thoroughly capable and up-to-date planing-mill superintendent for odd millwork factory. Good position to the right man. Furnish references in first letter and also advise salary desired. Do not reply unless you are thoroughly competent and up to date in your methods. Address No. 3078, care Manufacturers Record, Balto., Md.

WANTED—First-class high-grade gasoline engine and pumping engine mechanic by a reliable concern of old-established reputation in large Southern city. Prefer settled man. Address, with full particulars, No. 3080, care Manufacturers Record, Balto., Md.

WANTED—SALESMEN—I want 50 men to sell sanitary well bucket and curbing combined; commission and royalty. You get \$5 each sale. Box 245, Gadsden, Ala.

PRINTING

GOOD PRINTING. Low prices. We print booklets, lists, ruled forms, blanks all kinds, etc., way bills, bills of lading. Estimates free. Box 154, Maywood, Illinois.

OFFICE EQUIPMENT

BARGAINS.

Adding machines, calculating machines, duplicating machines, rotary mimeographs, addressing machines, check writers, envelope sealers, etc. All makes, new, used and rebuilt. Every machine guaranteed in perfect mechanical order. Collins & Co., 1324 Arch St., Philadelphia, Pa.

MACHINERY AND SUPPLIES

KEG STAVE MILL OUTFIT

FOR SALE—Keg stave mill outfit complete, in good condition. Camp Manufacturing Company, Franklin, Va.

SAWMILL MACHINERY

FOR SALE—Sawmill machinery: Band mill, carriage, gang edger, automatic trimmer, slab shaver, log kicker, loader, jacker, Garland slab conveyor, shafting, clutches, pulleys, and a lot of other attachments. Splendid condition. Write for particulars and price. Address No. 3082, care Manufacturers Record, Balto., Md.

PUMPING PLANT

FOR SALE—SECOND-HAND PUMPING PLANT.—24" Worthington single-suction centrifugal pump. 155 H. P. Babcock & Wilcox water-tube boiler. 240 H. P. Buckeye engine, vertical, cross-compound. Pumping capacity, 15,000 gal. per min. 36-ft. lift. Condenser, water heater, boiler-feed pump and other attachments, complete. In perfect shape, ready to run. For particulars address P. O. Box No. 2, Pierce, Texas.

PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

More Southern Proposal Advertising Is Printed In The Manufacturers Record Than In Any Other Paper

Bids close May 12, 1917.

PROPOSALS FOR STEEL DOORS, KALAMIN Doors, Galvanized Steel, Spring Bronze, Sheet Brass, Chain, Poultry Netting, Nuts, Screws, Cable Clips, Electric Cable, Magnet Wire, Compensators, Lighting Fixtures, Electric Meters, Electric Motors, Smoothing Planer, Saw Bench Machine, Brass Couplings, Cocks, Valves, Rescating Outfit, Wash Tray Plugs, Scrub Brushes, Paint Brushes, Grindstones, Hose, Cuspidors, Agate Cups and Plates, Window Glass, Adding Machine Paper, Rock Salt, and Switch Ties. Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10:30 A. M. May 12, 1917, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and information relating to this Circular (No. 1139) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 614 Whitney-Central Building, New Orleans, La., and Fort Mason, San Francisco, Cal.; also from the U. S. Engineer Offices in the principal cities throughout the United States. EARL I. BROWN, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

Bids close May 14, 1917.

PROPOSALS FOR LUBRICATING OILS and Greases. Annual estimate for the period ending June 30, 1918. Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10:30 A. M. May 14, 1917, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and information relating to this Circular (No. 1140) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 614 Whitney-Central Building, New Orleans, La., and Fort Mason, San Francisco, Cal.; also from the United States Engineer Offices in the principal cities throughout the United States. EARL I. BROWN, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

Bids close June 1, 1917.

TREASURY DEPARTMENT, Bureau of Engraving and Printing, Washington, D. C., April 16, 1917. Sealed proposals will be received at this Bureau until 2 P. M. Friday, June 1, 1917, to furnish during the fiscal year beginning July 1, 1917, paper to be used in printing postage stamps and internal revenue stamps. Award will be made only to bona fide manufacturers of paper. The right is reserved to reject any or all bids or parts of bids. Blank forms, with specifications for proposals, will be furnished intending bidders on application to JOSEPH E. RALPH, Director of Bureau of Engraving and Printing.

Bids close June 1, 1917.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., April 21, 1917. Sealed proposals will be opened in this office at 3 P. M. June 1, 1917, for the construction of the United States postoffice at Altus, Okla. Drawings and specifications may be obtained from the custodian of the site at Altus, Okla., or at this office, in the discretion of the Supervising Architect. JAS. A. WETMORE, Acting Supervising Architect.

Bids close May 29, 1917.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., April 18, 1917. Sealed proposals will be opened in this office at 3 P. M. May 29, 1917, for the construction complete of the United States postoffice at Berwick, Pa. Drawings and specifications may be obtained from the custodian of the site at Berwick, Pa., or at this office, in the discretion of the Supervising Architect. JAS. A. WETMORE, Acting Supervising Architect.

Bids close May 18, 1917.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., April 20, 1917. Sealed proposals will be opened in this office at 3 P. M. May 18, 1917, for repairs to heating system, etc., in the United States postoffice, Pueblo, Col., in accordance with drawings and specifications, copies of which may be had at this office or at the office of the custodian, Pueblo, Col., in the discretion of the Supervising Architect. JAMES A. WETMORE, Acting Supervising Architect.

Bids close May 23, 1917.

PROPOSALS FOR COAL. U. S. Engineer's Office, Montgomery, Ala. Sealed proposals for furnishing about 4000 tons of bituminous coal will be received at this office until 2 P. M. May 23, 1917, and then opened. Information on application.

Bids close May 14, 1917.

U. S. ENGINEER OFFICE, Baltimore, Md. Sealed proposals for dredging in Broad Creek River, Del., will be received here until 1 P. M. May 14, 1917, and then opened. Information on application.

Bids close May 4, 1917.

U. S. ENGINEER OFFICE, Baltimore, Md. Sealed proposals for dredging in Elk River, Md., will be received here until 1 P. M. May 4, 1917, and then opened. Information on application.

PROPOSAL ADVERTISING INFORMATION

RATE: 25 cents per line per insertion.

PUBLICATION DAY: Thursday.

FORMS CLOSE 9 A. M. Wednesday. Copy received later cannot be published until issue of following week.

NIGHT LETTER: When too late to send copy by mail to reach us by 9 A. M. Wednesday, forward by night letter.

THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:

Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies—25 cents per line per insertion.

Bids close May 14, 1917.

U. S. ENGINEER OFFICE, Baltimore, Md. Sealed proposals for dredging in Claborn Harbor and Tyaskin Creek, Md., will be received here until 1 P. M. May 14, 1917, and then opened. Information on application.

Bids close April 24, 1917.

\$150,000 4½% Bonds

Laurens County, S. C., offers One Hundred and Fifty Thousand Dollars road bonds, 4½ per cent., semi-annual interest, serial issue, five to thirty years. Sealed bids April 24, 10 A. M. Certified check 1 per cent. of bid required. Information furnished. Send bid to undersigned at Laurens, S. C.

H. B. HUMBERT, Supervisor.

Bids close May 14, 1917.

\$80,000 5% Notes

On Monday, May 14, 1917, sealed bids will be received and opened by the City Commissioners at the City Hall in Lakeland, Fla., for Eighty Thousand Dollars in Street-Improvement Notes of the City of Lakeland, to be issued in 16 notes of Five Thousand Dollars each, to mature in 6 months from date, bearing 5 per cent. interest, payable in New York. This issue of legal obligations of the City of Lakeland is authorized by special Act of the Florida Legislature, now in session, and is to be refunded by bond issue at the completion of paving contract now under way. Any and all bids may be rejected. Five-Hundred-Dollar certified check required to accompany all bids.

This April 12, 1917.

JOHN F. COX, Mayor and Chairman Finance Committee.

Bids close May 7, 1917.

\$500,000 5½% Bonds

Bridge Junction, Ark., April 4, 1917. Sealed proposals in duplicate for the purchase of Five Hundred Thousand (\$500,000) Dollars of 30-50-year five and one-half (5½%) per cent. bonds of the St. Francis Levee District of Arkansas, as authorized by the General Assembly of the State of Arkansas, will be received at the office until noon Monday, May 7, 1917, and then publicly opened.

The Board of Directors of the said District reserves the right to reject any and all bids or to waive any informalities in said bids. Each bid must be accompanied by a certified check of two (2%) per cent. of the amount bid.

Full information may be received from the Secretary-Treasurer, Bridge Junction, Arkansas.

H. D. TOMLINSON, President Board of Directors.

St. Francis Levee District.

EUGENE WILLIAMS, Secretary-Treasurer.

Bids close May 10, 1917.

\$45,000 5% Bonds

Sealed bids will be received at Easley, S. C., until 4 o'clock P. M. Thursday, May 10, 1917, for the purchase of \$45,000 City of Easley Five Per Cent. Coupon Bonds of \$1000 denomination each, to bear date of May 1, 1917, and maturing forty years from date, with the privilege of retirement at the end of twenty years. Interest payable semi-annually, May and November, with both interest and principal payable in New York City.

Bonds to be of two classes as follows: \$20,000 Sewerage Bonds. \$25,000 Street and Sidewalk Paving Bonds. Immediate delivery is desired on the \$20,000 Sewer Bonds and a later delivery on the Paving Bonds.

Authority: Special Act of 1917, and election held April 16, 1917. Sale of these bonds to be made by the Commissioners of Public Works, who are duly elected according to statute and by authority of City Council.

COMMISSIONERS OF PUBLIC WORKS.

W. M. HAGOOD, Chairman.

W. C. SMITH, Clerk.

P. M. TAYLOR, Clerk.

Bids close May 7, 1917.

\$60,000 Drainage Bonds

Sealed bids will be received at the office of the County Judge of Dyer County at Dyersburg, Tennessee, until 1 o'clock P. M. May 7, 1917, for the purchase of \$60,000 of twenty-year serial drainage bonds. Bids desired on 5½% and 6% bonds separately, interest payable semi-annually. Place of payment optional with purchaser. All bids must be accompanied with \$500 certified check. The right is reserved to reject any and all bids.

BOGOTA DRAINAGE DISTRICT.

By E. RICE,

Secy. Board of Directors.

Bids close May 15, 1917.

\$30,000 5% Bonds

GUARANTEED BY CREDIT OF COUNTY.

The Board of Commissioners of Greene County, North Carolina, offer for sale Thirty Thousand Dollars 5 Per Cent. Road Bonds to be issued for and behalf of Speights Bridge Township in said county under authority of Chap. 122, Public Laws North Carolina, Session 1915, with power in said Board to redeem and retire said township bonds, if so desired, with County Guaranty Bonds of the said County of Greene under authority conferred by and through House Bill 1120, Senate Bill 1086, of the General Assembly of North Carolina, Session 1917. The said Act of Assembly authorizes said Board to issue said County Guaranty Bonds, if so desired, as it does, to be due and payable annually in equal installments at the said rate of 5 per cent. per annum.

All bids will be accompanied by a certified check of Five Hundred Dollars and addressed either to J. C. Exum, Chairman, or H. L. Lassiter, Clerk, Snow Hill, N. C., and must reach them on or before noon of the 15th day of May next, at which time the said bids will be opened, the said Board reserving the right to accept or decline any or all bids submitted, which must be at or above par.

This 10th day of April, 1917.

H. L. LASSITER,

Clerk Board of Commissioners,

Greene County.

Bids close May 1, 1917.

\$1,000,000 Highway Bonds

Spartanburg, S. C. Sealed bids, at not less than par and accrued interest, will be received by the undersigned, and opened at the Supervisor's Office in the City of Spartanburg at 12 o'clock noon May 1, 1917, for the purchase of One Million (\$1,000,000) Dollars Spartanburg County Highway Bonds, to be dated May 1, 1917, and to mature as follows:

\$40,500 at the end of the first year, \$41,500 at the end of the second year, increasing in amount \$1000 annually thereafter, making \$59,500 the twentieth year.

Bonds to be in the denomination of \$500 and to bear interest at not exceeding 4½ per cent. per annum, payable semi-annually January 1 and July 1, both principal and interest payable at the Hanover National Bank, City of New York.

The approving opinion of Messrs. Storey, Thorndike, Palmer & Dodge as to the legality of the said bonds will be furnished. Each bid must be accompanied by a certified check for 2 per cent. of the par value of the bonds, said check to be drawn on some bank in the City of Spartanburg without limitation and payable to the order of W. H. Broom, County Supervisor, as a guarantee that the purchaser will take up and pay for the bonds as soon as they are signed and ready for delivery.

If the purchaser should fail to pay for the bonds in ten days after they are ready for delivery, the required deposit will be forfeited to the county. The right is reserved to reject any and all bids.

W. H. BROOM, Supervisor of Spartanburg County.

JNO. A. LAW, Chairman, The Spartanburg County Highway Commission.

Bids close May 24, 1917.

\$75,000 5% Bonds

TEN-YEAR CITY PAYING DISTRICT BONDS.

Salisbury, N. C. Sealed proposals will be received by Walter H. Woodson, Mayor of the City of Salisbury, N. C., up to 8 o'clock P. M. May 24, 1917, for approximately \$75,000 city bonds, bearing interest at 5 per cent., interest payable semi-annually (the interest and one-tenth of the principal payable annually at the National Park Bank, New York); bonds to be dated June 1, 1917, and will mature at the rate of one-tenth of the amount yearly for ten years and will be for one thousand dollars (\$1000) each.

Certified check for \$500 will be required with each bid to be applied to purchase in the event of acceptance.

The City of Salisbury reserves the right to reject any and all bids. Bids will be opened by the Mayor and Board of Aldermen at 8 o'clock P. M. May 24, 1917.

For further information address J. D. Norwood, Chairman of Finance Committee, Salisbury, N. C., or the undersigned.

WALTER H. WOODSON, Mayor,

Salisbury, N. C.

T. H. VANDERFORD, JR.,

City Attorney,

Salisbury, N. C.

Bids close May 7, 1917.

\$250,000 4½% Bonds

By virtue of the authority of an Act of the General Assembly of the State of South Carolina, approved by the Governor on the 1st day of March, 1917, for the purpose of road improvement, we hereby offer for sale to the highest responsible bidder Two Hundred and Fifty Thousand (\$250,000) Dollars of coupon bonds of Pickens County, said State, to mature in twenty years from date of issue, bearing interest at 4½ per cent. per annum, payable semi-annually, at the office of the County Treasurer of Pickens County at Pickens, South Carolina. Right reserved to reject any and all bids. Bids will be received up to and including the 7th day of May, 1917.

C. L. CURETON, Chairman,

Pickens, S. C.

R. F. LENHARDT,

Easley, S. C.

J. F. BANISTER,

Liberty, S. C.

Highway Commission.

Bids close April 30, 1917.

Sidewalks and Street Paving

Sealed proposals on blank forms furnished by the town, and addressed to the Mayor, will be received until 7:30 P. M. April 30, 1917, for furnishing all labor, material and equipment to construct, complete, sidewalks and street paving for the Town of Lenoir, North Carolina.

The work shall consist of approximately 35,000 square yards of street paving, 10,000 square yards of sidewalk paving, 1300 square yards of concrete gutter, 5000 lineal feet of combined curb and gutter, 2000 lineal feet of granite or cement curb, 1700 lineal feet of storm drain from 12 to 20 inches, and all necessary intake basins, manholes, etc.

Each bid must be accompanied by a certified check for one thousand (\$1000) dollars, made payable to E. F. Allen, Clerk and Treasurer, as a guarantee that within one week after the notice of award the successful bidder will enter into the contract proposed.

The checks of the unsuccessful bidders shall be returned as soon as the contract has been awarded, but the successful bidder's or bidders' will be retained until a bond for 25 per cent. of the amount of the contract has been executed and filed.

Plans and specifications can be seen at the office of the Engineer, Lenoir, North Carolina.

The right is reserved by the town to accept or reject any or all bids or portions of bids.

(Signed) B. F. WILLIAMS,

Mayor.

F. H. COFFEY,

Chairman Street Comm.

E. F. ALLEN,

Clerk and Treas.

E. W. COLE,

Engineer.

Bids close May 18, 1917.

Street Paving

Sealed bids will be received by the undersigned until noon of Friday, May 18, 1917, for curbing, paving and otherwise improving Alabama Avenue in the City of Selma, Ala., from a line 120 feet west of the west margin of Lauderdale Street to the west line of Union Street, as provided for in Improvement Ordinance No. 76. Certified check for \$400 required with each bid. Plans and specifications may be seen at the office of the City Engineer at Selma, Ala. The City Council reserves the right to reject any and all bids.

W. O. CRISMAN,

City Engineer.

PROPOSALS

SEWERS WATER-WORKS ELECTRIC LIGHT PLANTS BRIDGES

More Southern Proposal Advertising Is Printed In The Manufacturers Record Than In Any Other Paper

Bids close May 7, 1917.

Bituminous Materials

STATE OF TENNESSEE.
OFFICE DEPARTMENT OF HIGHWAYS,
NASHVILLE, TENNESSEE.

Pursuant to the provisions of Chapter 109, Senate Bill 563, of the Public Acts of Tennessee of 1915 (Highway Law), appropriating public funds collected under Chapter 8, Senate Bill 286, of the Public Acts of Tennessee of 1915, and Chapter 73, Public Acts of 1917 (Automobile Tax Law), said funds appropriated for the maintenance of the designated State Highways, sealed proposals will be received by the undersigned at the Office of the State Highway Department, 405 7th Ave. N., Nashville, Tenn., until 11 A. M. Monday, May 7, 1917, for the purchase and delivery of bituminous materials f. o. b. in tank cars, with special heater attachments, separately for:

Section No. 1, Memphis, Shelby County;
Section No. 2, Jackson, Madison County;
Section No. 3, Nashville, Davidson County;
Section No. 4, Chattanooga, Hamilton County;
Section No. 5, Knoxville, Knox County,
all in the State of Tennessee, in such quantities as may be specified by the undersigned, approximately 510,000 gallons.

The quality of the bituminous material must be in strict accordance with the specifications on file in the Office of the State Highway Department, which will be furnished upon application.

Each proposal or bid must be accompanied by certified check of 5 per cent. of the amount of the proposal, payable at sight to the order of J. J. Murray, Secretary of the State Highway Department. This draft or check to be held by the State Highway Department until the contract is awarded, executed and satisfactory bond is filed.

The successful bidder or bidders on the above proposal will be required to give a bond of 50 per cent. of the amount of the contract, such bond to be executed by a surety company authorized to do business in the State of Tennessee and approved by the State Highway Department.

This bond is for the purpose of insuring the delivery of the bituminous material at the places mentioned above and as called for in the specifications of the State Highway Department in quantity and of the quality specified.

The right is expressly reserved to accept or reject any or all bids or proposals.

The certified draft or check will be returned upon the signing of the contract and bond by the selected bidder or bidders. Bids will be opened promptly at 11 A. M. on the 7th day of May, 1917.

Additional bituminous material will also be awarded under same specifications as used by State for several municipalities throughout Tennessee, estimated amount 300,000 gallons, to be paid for by municipalities ordering same.

STATE OF TENNESSEE.
DEPARTMENT OF HIGHWAYS,
By J. J. MURRAY, Secretary.
By A. M. NELSON, Engineer,
405 7th Ave. N., Nashville, Tenn.
Nashville, Tennessee, April 18, 1917.

Bids close May 10, 1917.

Street Paving

Department of Public Works.

Augusta, Ga., April 16, 1917.

Sealed proposals, addressed to the City Council of Augusta, Georgia, will be received by the Streets and Drains Committee until 4 o'clock P. M., Eastern time, Thursday, May 10, for furnishing all materials, tools and labor and constructing complete approximately 15,000 square yards of street pavement on Monte Sano Avenue from Central Avenue to Walton Way. Bids on various kinds of pavement will be received. The pavement to be used will be selected by the Streets and Drains Committee after bids are opened.

A bond of \$10,000 will be required from the successful bidder.

Cash or certified check for \$500 must accompany each bid as a guarantee of good faith.

Payment will be made in cash on monthly estimates.

The city reserves the right to reject any or all bids.

Specifications can be had by application at this office on or after April 20, 1917.

NISBET WINGFIELD,
City Engineer and Commissioner
Public Works.

Bids close May 15, 1917.

Street Paving

Sealed bids will be received by the undersigned until noon of Friday, May 18, 1917, for curbing, paving and otherwise improving Selma Avenue in the City of Selma, Ala., from the west line of Lauderdale Street to the east line of Pelham Street, as provided for in Improvement Ordinance No. 79. Certified check for \$400 required with each bid. Plans and specifications may be seen at the office of the City Engineer at Selma, Ala. The City Council reserves the right to reject any or all bids.

W. O. CRISMAN,
City Engineer.

Bids close May 7, 1917.

Road Construction

SPECIAL DISTRICT OF HOWEY,
LAKE COUNTY, FLORIDA.

Sealed proposals will be received by the Clerk of County Commissioners of Lake County, Florida, at the office of the County Clerk in the Court House at Tavares, Florida, for the construction of a system of roadways in Lake County, until 10 o'clock Monday, May 7, 1917, at which time they will be opened and read publicly. The work includes the furnishing of all labor, material and machinery and equipment of every kind necessary to construct the roadways according to plans and specifications. The approximate quantities are as follows:

121,290 lineal feet of Roadway.
31,717 cubic yards of Excavations.
218,800 square yards Sand-Clay Surfacing.
70 acres Clearing and Grubbing.
180 feet 18" T. C. Drains.
180 feet 15" T. C. Drains.
180 feet 12" T. C. Drains.
700 lineal feet Bridge Reconstruction (Browns Ford).

Bids are asked for sand-clay surfacing.

Each bid must be accompanied by a certified check on a national bank for 5 per cent. of the amount bid, or an approved bid bond issued by a surety company authorized to do business in the State of Florida, drawn to the order of the County Clerk, H. H. Duncan.

Plans and specifications may be seen at the office of the County Clerk or at Hougainville Hotel, Howey, or at the office of the Engineer. Specifications may be obtained from the County Clerk or the Engineer. Copies of plans may be obtained from the Engineer at \$7.50 per set to cover their actual cost.

The right is reserved to reject any or all bids.

M. V. SIMPSON, Chairman.
H. H. DUNCAN, Clerk.
E. J. CLOSE, Engineer,
Leesburg, Fla.

Bids close May 1, 1917.

Road Improvement

Notice is hereby given that sealed bids will be received by the Board of Commissioners of Road Improvement District Number One of Lawrence County, Arkansas, at the office of Ponder, Gibson & Ponder, Attorneys for District, at Walnut Ridge, Arkansas, up to 12 o'clock noon on the first day of May, 1917.

Approximate quantities as follows:
75,500 cu. yds. excavation, 55 acres clearing and grubbing, 66 lin. ft. 15-inch corrugated pipe, 110 lin. ft. 18-inch corrugated pipe, 370 lin. ft. 24-inch corrugated pipe, 200 cu. yds. plain concrete, 200 cu. yds. reinforced concrete, 35,546 tons crushed rock and 300 lin. ft. of steel bridges.

Bids must be made on blank forms provided by the District.

Only sealed bids will be considered, and no bid will be considered unless accompanied by a certified check in the sum of two thousand dollars or not less than 2 per cent. of amount bid, made payable to J. G. Richardson, Secretary of Board, said check to be returned in case bid is rejected or when contract is signed and satisfactory bond is furnished in case bid is accepted.

Plans and specifications may be seen and blank forms obtained at the office of F. A. Pritchett, Engineer for District, Walnut Ridge, Ark., or at the office of Ponder, Gibson & Ponder, Attorneys.

The Board reserves the right to reject any or all bids.

J. A. FENDER,
J. G. RICHARDSON,
J. W. LATHAM,
Commissioners.

Bids close May 1, 1917.

Macadam Road

Notice is hereby given that sealed bids for the material and for the construction of a 5 1/2-mile macadam road will be received by the Board of Commissioners of Road Improvement District Number Two at the office of Lawrence County, Arkansas, at the office of Ponder, Gibson & Ponder, Attorneys for District, Walnut Ridge, Ark., up to 12 o'clock noon on the first day of May, 1917.

Approximate quantities as follows:

18,819 cu. yds. excavation, 6 acres clearing and grubbing, 130 lin. ft. 15-inch corrugated pipe, 240 lin. ft. 18-inch corrugated pipe, 45 lin. ft. 24-inch corrugated pipe, 45 lin. ft. 30-inch corrugated pipe, 50 cu. yds. reinforced concrete, 27 cu. yds. plain concrete, 6563 tons crushed stone and 25 lin. ft. steel bridge.

Bids must be made on blank forms provided by the District.

Only sealed bids will be considered, and no bid will be considered unless accompanied by a certified check in the sum of \$500, made payable to W. R. Lane, Secretary of Board, said check to be returned in case bid is not accepted or when contract is signed and satisfactory bond is furnished in case bid is accepted.

Plans and specifications may be seen and blank forms obtained at the office of F. A. Pritchett, Engineer for District, Walnut Ridge, Ark., or at the office of Ponder, Gibson & Ponder, Attorneys.

The Board reserves the right to reject any or all bids.

Bids close May 25, 1917.

Highway Improvement

The Board of Supervisors of Road District No. Eight of Rapides Parish, Louisiana, will receive sealed bids up to 12 noon of Saturday, May 25, 1917, for the grading, bridging, culverts and drains; for the hauling, placing and rolling of the gravel surface; for the gravel, sand, stone, reinforcement and bridge material required for the construction of Units One, Two and Three of the Highways to be improved in Road District No. Eight, aggregating approximately 15 miles, all in accordance with certain plans and specifications on file in the office of Ira W. Sylvester, Engineer, Alexandria, Louisiana.

Bids will be accompanied by certified check in the amount of 5 per cent. of the price bid, made payable to J. W. Texada, President Board of Supervisors Road District No. Eight.

The right to reject any and all bids is reserved.

All bids will be opened and considered in the Police Jury Room of the Parish Court-house, Alexandria, Louisiana, at 12 noon of Saturday, May 26th, 1917.

For further information address

J. W. TEXADA, Pres.,
Board of Supervisors Road Dist. No. 8,
Boyce, Louisiana.
IRA W. SYLVESTER, Engr.,
Alexandria, Louisiana.

Bids close May 7, 1917.

Street Paving

Edenton, N. C.

Sealed proposals will be received by the Mayor and Council of Edenton, N. C., at the office of the Town Clerk, for paving certain streets, until 8 o'clock P. M. May 7, 1917, at which time they will be opened and read publicly. The work includes the furnishing of all labor, material and machinery and equipment of every kind necessary to construct approximately twenty-five thousand (25,000) square yards of Asphalt, Concrete or Brick Pavements, with the necessary curbing, storm drainage, etc.

Each bid must be accompanied by a certified check on a bank satisfactory to the Mayor and Council for One Thousand (\$1000) Dollars, drawn to the order of Town Clerk. Specifications may be obtained from the Engineers or from the Town Clerk for a fee of \$2. Plans and profiles will be furnished at actual cost of printing.

The right is reserved to reject any or all bids.

TOWN OF EDENTON, N. C.
E. R. CONGER, Mayor.

J. R. McMULLAN,
Town Clerk.

THE J. B. McCLARY COMPANY,
Engineers.

Third National Bank Bldg.,
Atlanta, Ga.

Bids close May 9, 1917.

Permanent Highways

Sealed separate bids will be received by the Boards of Highway Commissioners for Districts Nos. 2 and 3, Sunflower County, Miss., up until 2 P. M. Wednesday, May 9, 1917, for the construction of permanent highways, consisting of concrete pavement, gravel and asphalt surface roads, also proper drainage; \$200,000 available.

Plans and specifications for both districts now on file at the office of the Chancery Clerk. Same will be sent upon request, accompanied by check for \$2.50, payable to Stein & Harbert, Indianapolis, Miss., Engineers District No. 3; H. S. Gove, Moorhead, Miss., Engineer District No. 2.

The right is reserved to reject any and all bids.

A certified check for \$2000 must accompany bid on each district, same to be made payable to the Highway Commissioner of that district.

JOHN W. JOHNSON,
Chancery Clerk.

Bids close May 1, 1917.

Concrete Roads

The Police Jury of Calcasieu Parish, Louisiana, will receive sealed bids, addressed to H. G. Chalkley, President, Lake Charles, La., until 2 P. M. Tuesday, May 1, 1917, for the construction of 70,000 square yards of concrete roads in Calcasieu Parish, La.

Plans and specifications may be obtained from the office of the Highway Engineer, Lake Charles.

Certified check or bidder's bond for five thousand (\$5000) dollars, payable to E. C. House, Treasurer, must accompany each bid.

The Police Jury reserves the right to reject any or all bids.

H. G. CHALKLEY,
President Police Jury,
Lake Charles, La.

FRED SHUTTS,
Highway Engineer,
Lake Charles, La.

Bids close May 18, 1917.

Street Paving

Sealed bids will be received by the undersigned until noon of Friday, May 18, 1917, for curbing, paving and otherwise improving Alabama Avenue in the City of Selma, Ala., from the west line of Union Street to the east line of Satterfield Street, as provided for in Improvement Ordinance No. 75. Certified check for \$400 required with each bid. Plans and specifications may be seen at the office of the City Engineer at Selma, Ala. The City Council reserves the right to reject any or all bids.

W. O. CRISMAN,
City Engineer.

Bids close May 10, 1917.

Superstructure of Bridge, Grading and Paving About 4 1/2 Miles of County Road

Sealed bids will be received by Cabell County Court until 1 P. M. Thursday, May 10, 1917, for building, constructing and completing of iron and steel superstructure, concrete work for floors and brick pavement over Four-Pole Creek, near Huntington, Cabell County, W. Va., all work to be done according to plans and specifications on file in office of Oliver & Maupin Engineering Co., Court House, Huntington, W. Va., and bidders may submit plans and specifications for reinforced concrete bridge on said date to the Court, Court to have right to examine and inspect each of said plans and specifications.

Right reserved to reject any and all bids.

\$500 certified check to be deposited with bid as guarantee for entering into contract.

Also for the grading, paving and building with No. 1 vitrified brick, to be selected by the Court, with combination concrete base and curb, about four and a half miles of Kanawha and James River Turnpike—using the old C. & O. Ry. Co. right of way—from east corporation line of Milton to Cabell-Putnam county line, according to plans and specifications on file in the office of Oliver & Maupin Engineering Co., Court House, Huntington, W. Va.

\$500 certified check to be deposited with bid as guarantee for entering into contract.

Court reserves right to reject any and all bids.

All bids to be filed with R. S. Douthat, County Clerk at Huntington, W. Va.

CLERK OF CABELL COUNTY,
WEST VIRGINIA.

By D. I. SMITH, President.

Bids close May 25, 1917.

Road and Bridge Construction

Sealed proposals will be received by the Board of County Commissioners of Putnam County, Florida, at Palatka, Florida, until noon of Friday, May 25, 1917, for furnishing material, equipment and labor for the following work:

Approximately twenty-nine miles of road paving in Putnam County, Florida (Vitrified Brick, Asphalt, Asphaltic Concrete, Asphalt Block and Concrete Pavements will be considered), complete with necessary curb and pipe drainage; two reinforced concrete bridges and five reinforced concrete culverts. The bidder may make proposal on one or all classes of pavements specified.

Bids must be made on blank forms furnished by the Board. Plans and specifications can be seen at the office of the County Clerk at Palatka, Florida, and specifications can be obtained by writing the Clerk and paying \$5 to cover the actual cost of printing; said \$5 to be returned when the specifications are returned in good condition with a bona fide bid on the work.

This April 16, 1917.

C. E. ROWTON,
Chairman.

R. J. HANCOCK,
Clerk.

FRANK J. FAGAN,
Engineer.

Bids close May 7, 1917.

Reinforced Concrete Bridge

Notice is hereby given that the County Commissioners of Manatee County, Florida, will receive bids up to 10 o'clock A. M. Monday, May 7, 1917, at their office in the courthouse in Bradenton, Manatee County, Florida, for the construction of a reinforced concrete bridge across the Manatee River between Bradenton and Palmetto, from Florida Avenue in Bradenton to Lemon Avenue in Palmetto in Manatee County, Florida, the said bridge to be constructed according to detail plans and specifications prepared by Chas. A. Browne, C. E., now on file in the office of the Clerk of the Circuit Court of Manatee County, Florida. Bidders are requested to bid upon the plans and specifications above referred to, but bids will be received upon alternate plans and specifications which may be proposed by bidders. County Commissioners of Manatee County, Florida, reserve the right to reject any and all bids received. Contract to be awarded subject to sale of bonds to be issued for the construction of the said bridge. All bids will be opened immediately after 10 o'clock A. M. May 7, 1917.

ROBT. H. ROESCH,
Clerk.

(CONTINUED ON NEXT PAGE)

PROPOSALS

SEWERS WATER-WORKS ELECTRIC LIGHT PLANTS BRIDGES

More Southern Proposal Advertising Is Printed In The Manufacturers Record Than In Any Other Paper

(CONTINUED FROM PRECEDING PAGE.)

Bids close May 10, 1917.

Water-Works and Sewers

Tennille, Ga.

Sealed bids will be received at the City Clerk's office at Tennille, Ga., until 8 P. M. May 10 for the construction of the following work: First—About four miles of sanitary sewers, principally 8" pipe, with manholes and flush tanks; contractor to furnish all materials. Second—Hauling and laying about 3600 feet of 6" and 8" water mains and about two miles 12" to 24" service pipe; contractor to furnish all materials except pipe, which has been purchased. Certified check for 5 per cent. of bid required.

Plans may be examined at the Clerk's office at Tennille, Ga., or at the office of the Engineer in Atlanta. Specifications furnished after April 25.

IVerson Lord,
Mayor.

ARTHUR PEW, Engineer,
500-1 Forsyth Theater Bldg.,
Atlanta, Ga.

Bids close May 25, 1917.

Water-Works and Sewers

Sealed proposals, addressed to Peter J. Hagen, Town Clerk, Mt. Ranier, Md., will be received until 2:30 P. M. May 25, 1917, for furnishing all materials, tools and labor and constructing complete approximately ten miles of sanitary sewers, 8 inches to 12 inches in diameter; approximately ten miles of water mains, 4 inches to 8 inches in diameter; water-works pumping station, and steel tank and tower. Bids will be received for the entire work or for any portion thereof. Plans and specifications may be seen at

the Town Clerk's office, Mt. Ranier, Md., or at the office of Harry Stevens, Consulting Engineer, Union Trust Building, Washington, D. C., or may be obtained from the Engineer for \$5 per set, the actual cost of printing.

Right is reserved to reject any or all bids. For the information of prospective bidders, the town has the necessary funds for the above work deposited in the bank.

FRED E. WEBER, Mayor.
HARRY STEVENS, Engineer.

Selection of Designing Architect

GREENVILLE CITY HOSPITAL.

On May 14, 1917, the Board of Governors of Greenville City Hospital, Greenville, S. C., will confer with architects for the purpose of selecting a Designing Architect for the new hospital building.

This will not be a competition. However, the Board will require that the chosen architect shall have had definite experience in the design of hospital propositions which have been carried through successfully, and must submit acceptable evidences of his success and experience and present office organization.

Architects desiring a meeting of the Board on the appointed day will please communicate this intention to the Chairman or the Supervising Architect, from whom additional information may be obtained.

CHARLES F. HARD, Chairman;
W. A. MERRITT, Secretary,
Board of Governors.

H. OLIN JONES,
Consulting and Supervising Architect.

Bids close May 3, 1917.

Number Plates

STATE OF TENNESSEE.

OFFICE OF DEPARTMENT OF HIGHWAYS.

Nashville, Tenn.

Pursuant to the provisions of Chapter 73, House Bill No. 1033, Public Acts of Tennessee of 1917 (amended Automobile Bill), said Act requiring the Department of Highways to purchase the necessary automobile license plates, demonstration license plates and motorcycle license plates to be used by the said Department from January 1, 1918, to December 31, 1918, sealed proposals will be received by the undersigned in the office of the Department of Highways, State of Tennessee, No. 505 Seventh Avenue, North, Nashville, Tennessee, until noon on Thursday, May 3, 1917, for the purchase and delivery of the number plates of each series actually needed and required for the year 1918; estimate of number plates needed, 40,000 sets of automobile plates, 1000 sets of demonstration plates, 500 sets of motorcycle plates. Specifications, time of delivery, etc., may be had by addressing the undersigned.

DEPARTMENT OF HIGHWAYS,
STATE OF TENNESSEE.
J. J. MURRAY,
Secretary.

Bids close May 24, 1917.

Sealed Proposals for Construction and Equipment of Building for the Federal Reserve Bank, Atlanta, Ga.

TO BE ERRECTED ON THE LOT KNOWN AS NO. 104 MARIETTA STREET IN THE CITY OF ATLANTA.

1st. Sealed proposals, addressed to M. B. Wellborn, Chairman of the Board, Federal Reserve Bank, Atlanta, Ga., will be received at 10 o'clock A. M. May 24, 1917, for the furnishing of the labor and material required for general contract work and each of the mechanical trades—heating, plumbing, wiring, lighting fixtures, vault and other equipment—for a building covering an area of approximately 70x98 feet. Said building to con-

sist of basement, main floor and second or mezzanine floor, all of which is more minutely described by the plans and specifications on file in the office of the Architect, A. Ten Eyck Brown, 607-10 Forsyth Building, Atlanta. All bids to be endorsed on the cover, "Proposal for (giving trade or trades) on Federal Reserve Bank Building."

2d. Copies of drawings and specifications may be obtained from the above-named Architect upon a deposit of a certified check for ten (\$10) dollars, made out to him, for each set desired. One-half of said check to be returned to the maker on the return of the plans and specifications in good condition.

3d. All bids must be submitted on special proposal blanks furnished by the Architect, or they will not be considered. Each proposal must be accompanied by a certified check of two (2%) per cent. of the amount of proposal, payable to the Chairman of the Board, as a guarantee that the bidder will enter into a contract according to the plans and specifications and execute a bond for 50% of the amount of the contract within ten (10) days after notification of the acceptance of his bid, failing which said certified check will become forfeited to the Federal Reserve Bank of Atlanta as liquidated damages.

4th. On the signing of the contracts and approval of bonds checks of the unsuccessful bidders will be returned to their respective makers.

5th. Payments upon the work will be made monthly for eighty-five (85%) per cent. of the value of material and labor furnished and acceptable; balance of fifteen (15%) per cent. will be payable on completion of the contract in conformity with the plans and specifications.

6th. The Building Committee of the Federal Reserve Bank of Atlanta reserves the right to reject any or all proposals.

(Signed) M. B. WELLBORN,
Chairman of the Board,
Federal Reserve Bank of Atlanta.

Bids close May 8, 1917.

Steel Convict Cage

Clearwater, Fla.

Wanted to purchase a Steel Convict Cage to accommodate about twelve men. Bids to be received second Tuesday in May, 1917.

J. N. BROWN,
Clerk to Board.

Machinery, Equipment and Supplies —WANTED—

WANTED MOTORS and DYNAMOS

We pay highest spot cash prices
Write at once what you have for sale

QUICK ACTION

NATHAN KLEIN & CO.

We Also Buy Belting and Machinery

208 Centre St., N. Y. C.

WANTED

72x20 Return Tubular Boiler, or larger, complete with fittings, including stack. Must be in first-class condition and stand insurance inspection for 135 lbs. pressure. Quote price and advise how soon shipment can be made after inspection.

RODEN COAL CO.
MARVEL, ALA.

If you wish to keep posted on the progress of the South read the
MANUFACTURERS RECORD

Price \$4.00 a year, or six months for \$2.00

WANTED

One No. 5 or No. 6 Gates or No. 5 or No. 6 McCully Crusher. One 30-inch-gauge Dinky, two 100 H. P. Firebox Boilers with stacks, 4500 ft. 3-inch, 2000 ft. 2-inch Wrought-Iron Pipe. Address

CAMBRO-CLINTON MINING CO.
209 N. 21st Street
Birmingham, Ala.

Wanted

Ten tons or more second-hand ½" Proof Coil Chain, plain or galvanized.

A. C. TUXBURY LUMBER CO.
Charleston, S. C.]

Wanted—Macadam Roller

Contractor in immediate need of Road Roller. Desires figures on 10-ton roller.

Address

"URGENT," care Manufacturers Record

BUILDING MATERIALS

M. E. RANDOLPH
Dante, Va.

wants catalogues, samples and prices on general building material.

WANTED

300 DRY KILN TRUCKS

6 feet or 6 feet 6 inches long, with 6-inch or 8-inch wheels, roller bearing. Address

GRISMORE-HYMAN COMPANY
Memphis, Tenn.

SOUTHERN SHOPS SEEKING CONTRACT WORK

Castings, Stampings, Forgings, Machine Work, Metal Specialties

In addition to handling local jobs of this kind, these firms are open for special orders for outside contract work.

Altavista Foundry Co.

Grey Iron Castings
from 1 lb. to 8 tons.

Machine Work
Patterns of all kinds

Let us bid on your work.

ALTAVISTA, VA.

CASTINGS

GREY IRON, SEMI-STEEL OR BRASS furnished promptly. Capacity 30 tons daily. Our equipment is modern and our work guaranteed first-class.

Mail us your inquiries for Castings and Machine work.

Greenville Iron Works, Inc.
Greenville, S. C.

Kentucky Electrical Co.

Incorporated

OWENSBORO, KENTUCKY

Is especially well equipped for doing

All kinds of machine work.

Correspondence solicited from those having a congestion of such work.

Foundry and Machine Work

We are prepared to accept contracts for furnishing gray iron castings up to 10,000 pounds, in the rough or machined. Also pattern work. Send Blue Prints and Specifications for quotation.

DAVIS FOUNDRY & MACHINE WORKS
Rome, Georgia

Rome Machine & Foundry Co.

**Castings,
Machine and Pattern Work
Sheet Steel, Etc.**

ROME, GEORGIA

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To get in touch with some Extra Contract Work

ADVERTISE IN THE

**Southern Shops Seeking Contract Work
Department**

Rates on Application.

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